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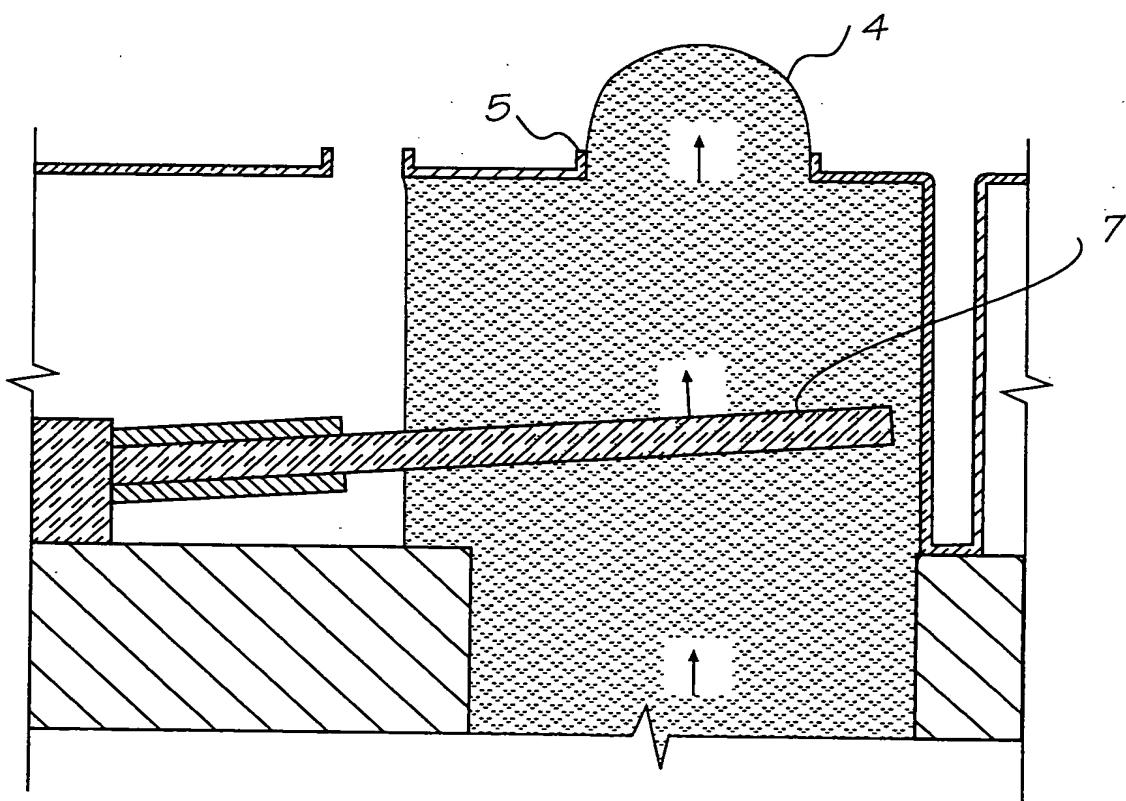
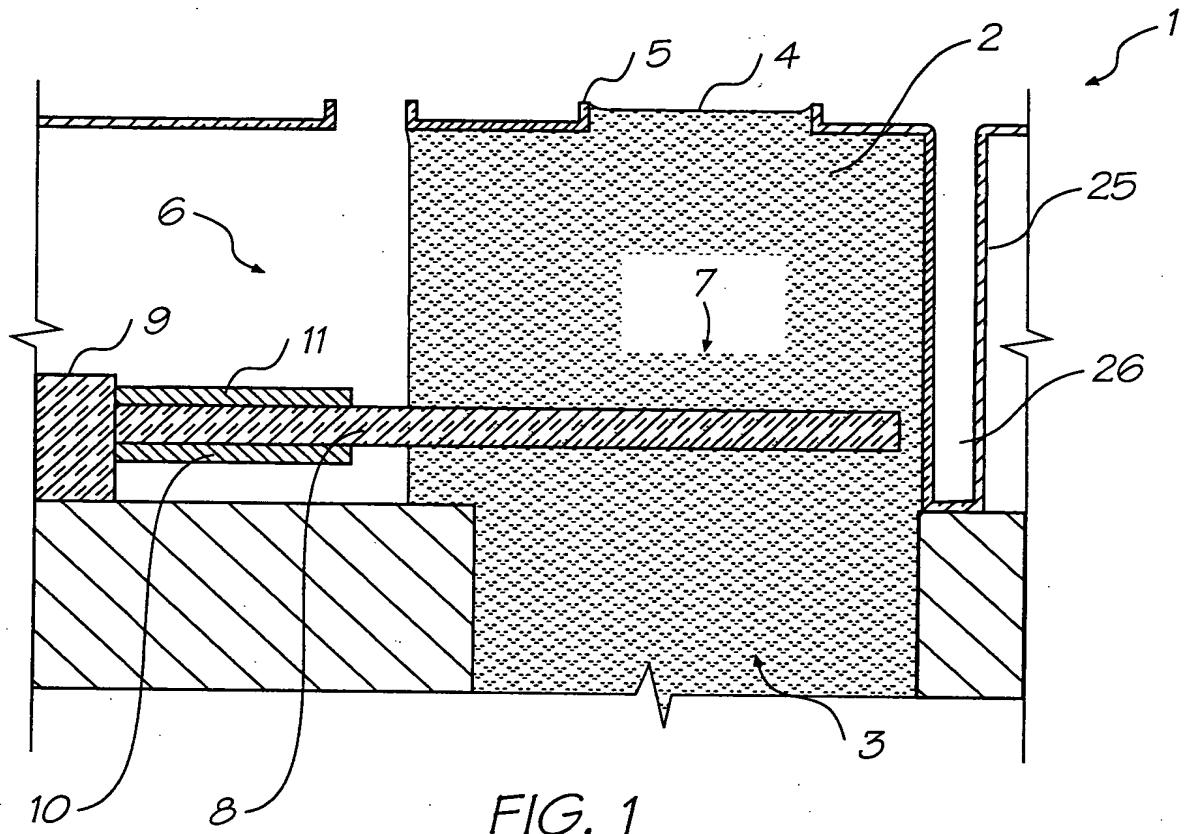


FIG. 2

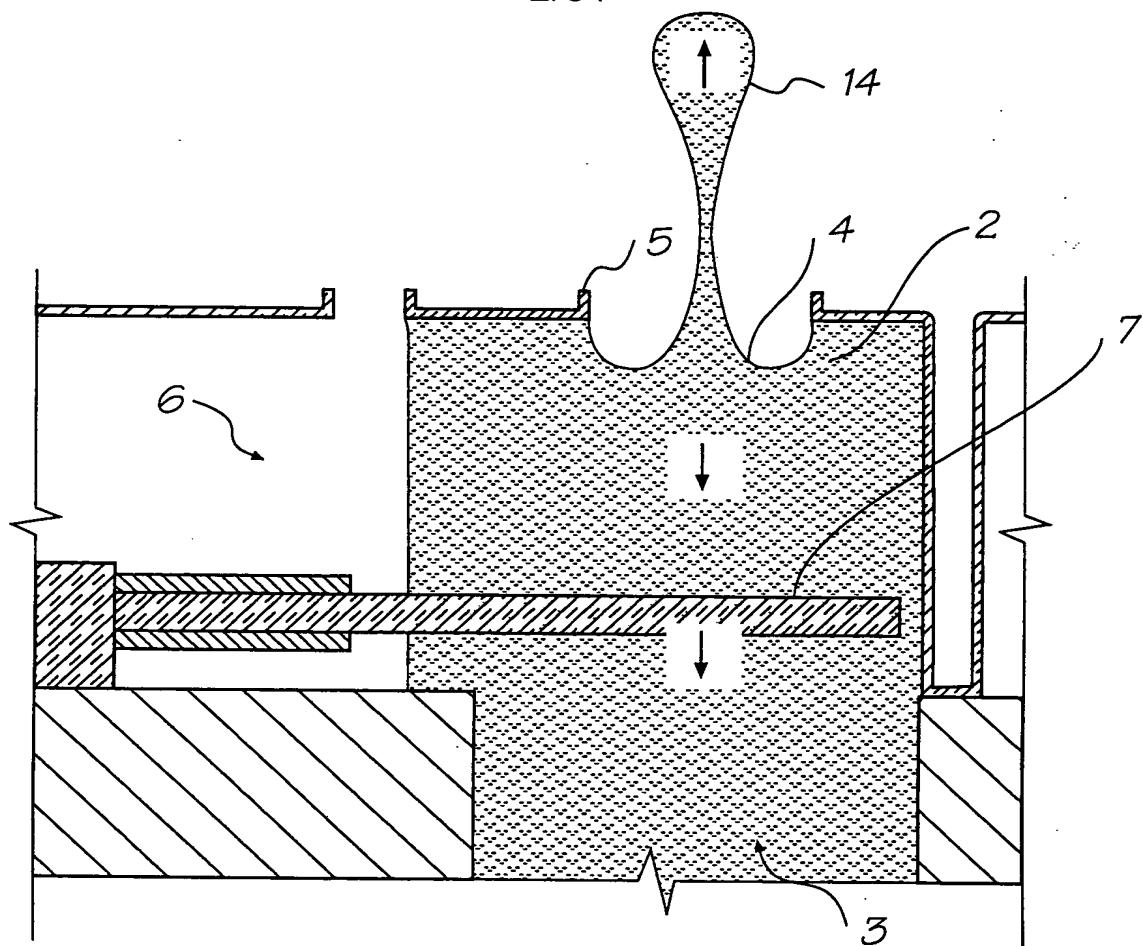


FIG. 3

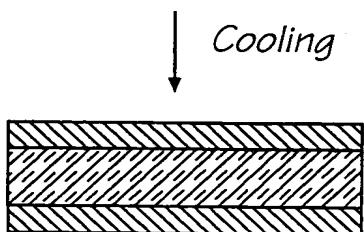
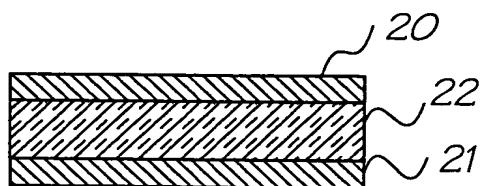


FIG. 4

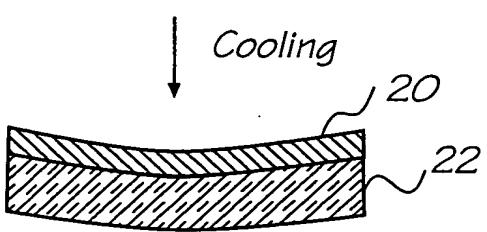
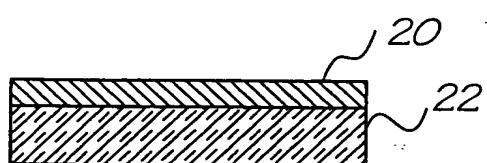


FIG. 5

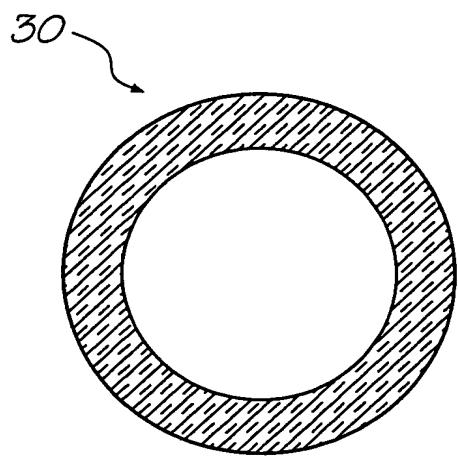


FIG. 6

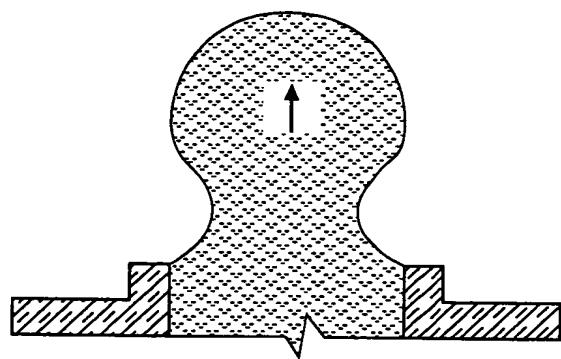


FIG. 7

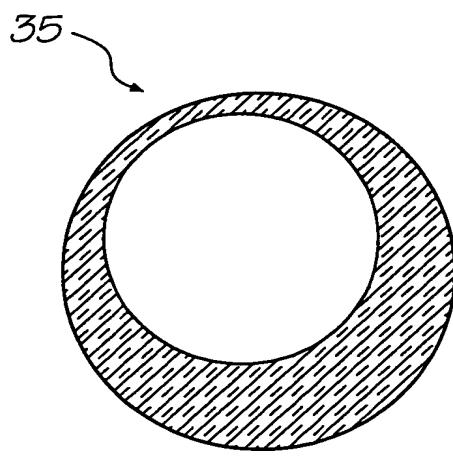


FIG. 8

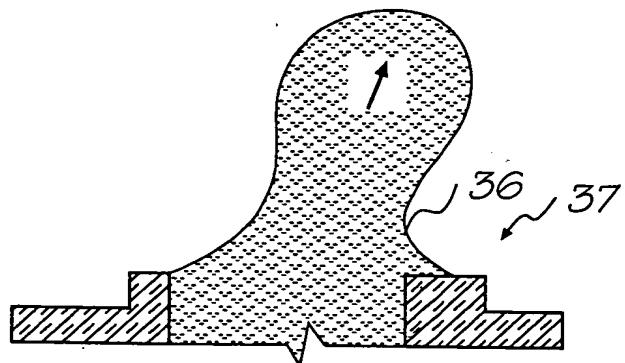


FIG. 9

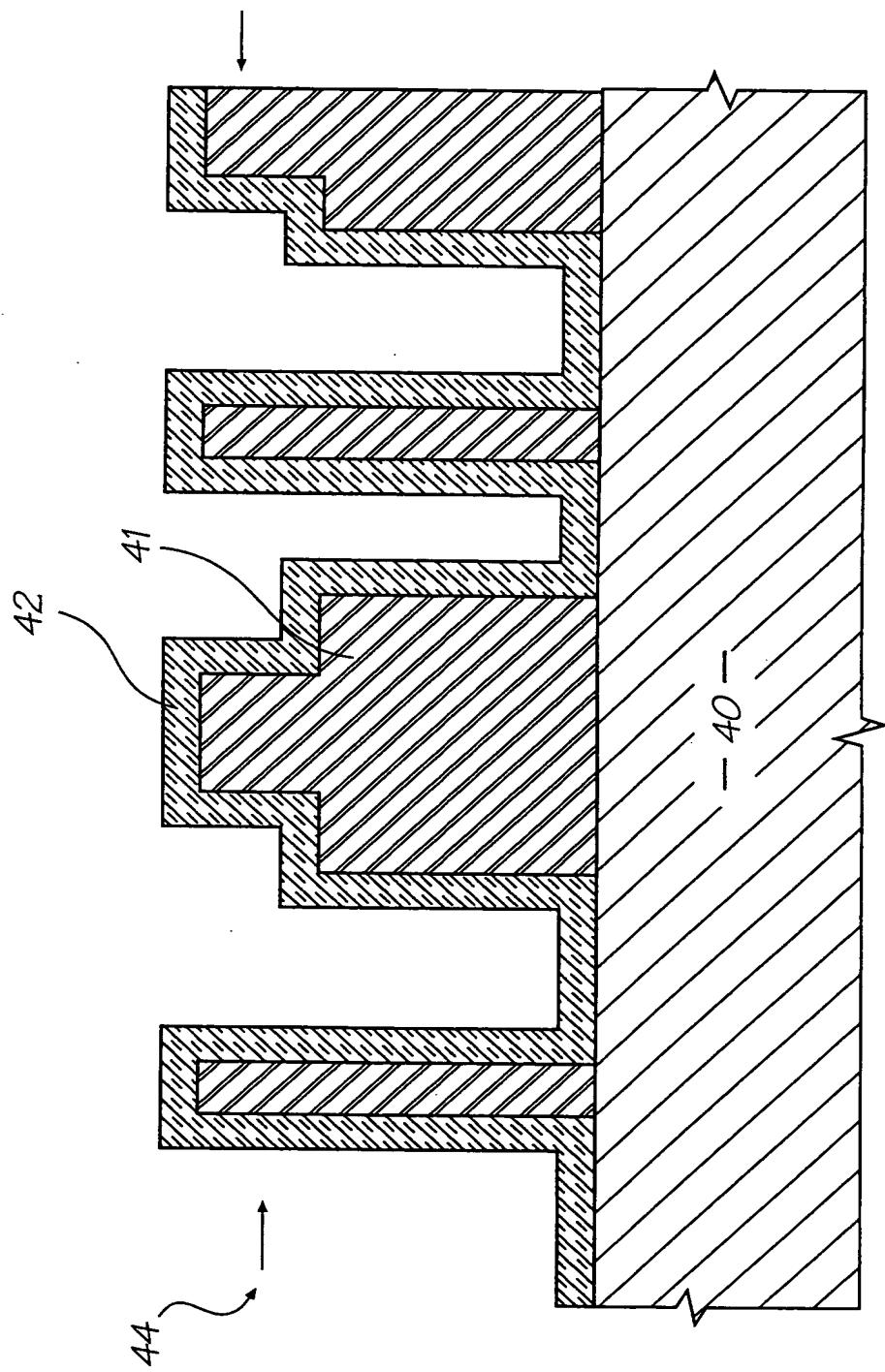


FIG. 10

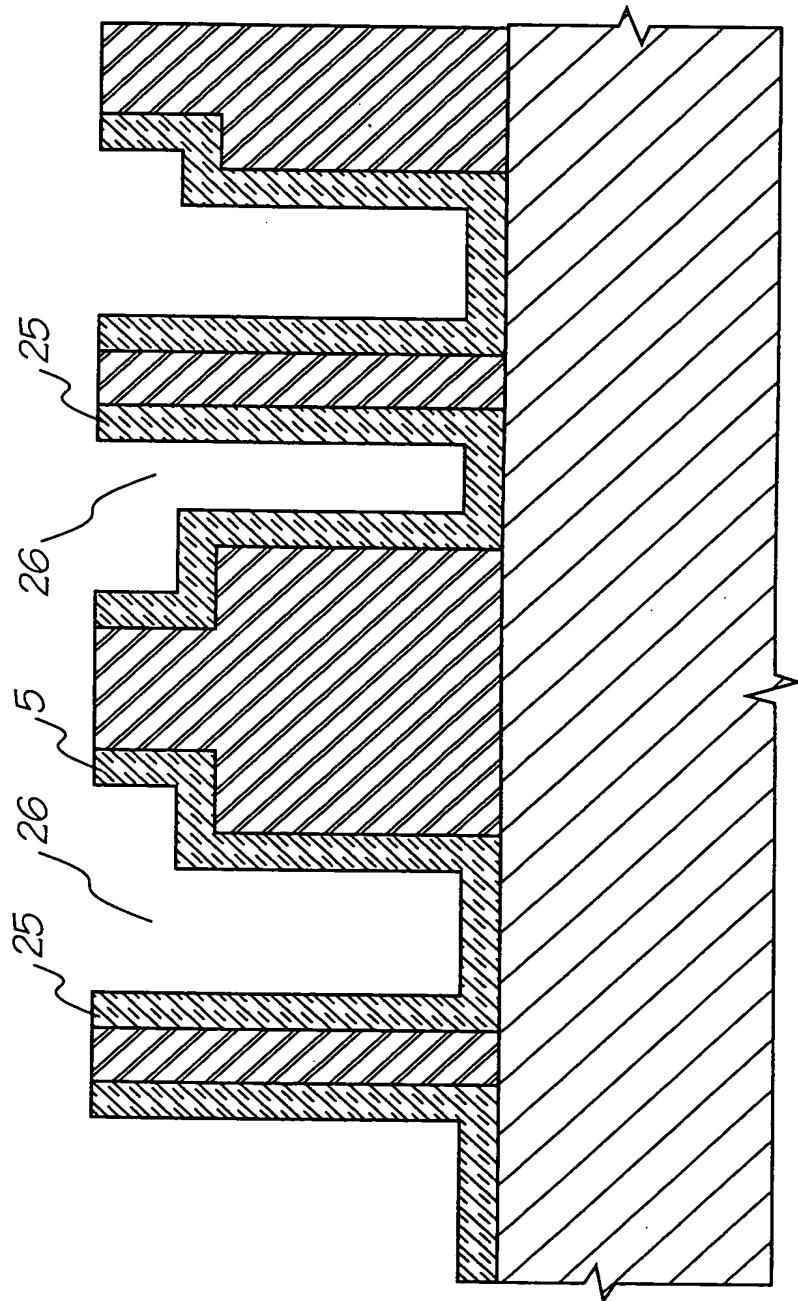


FIG. 11

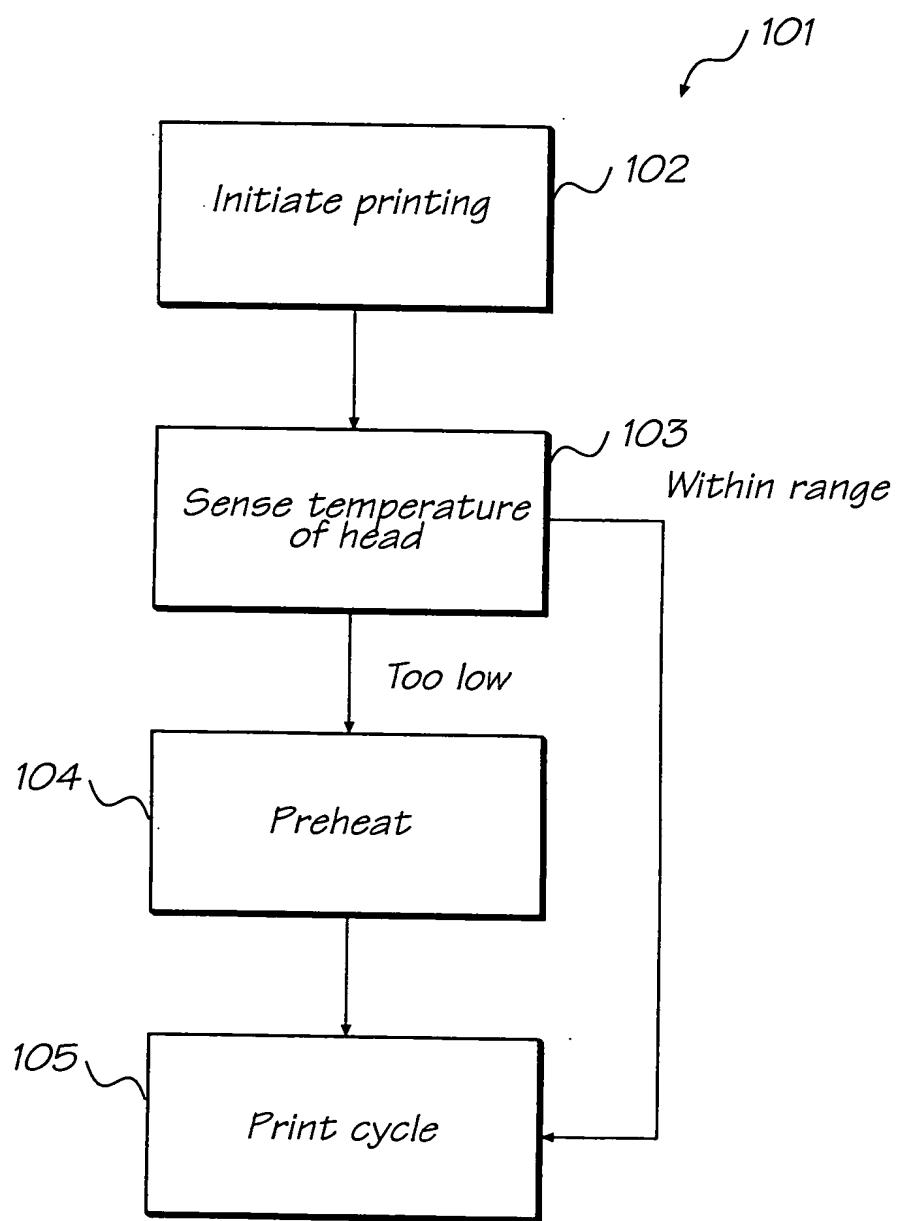


FIG. 12

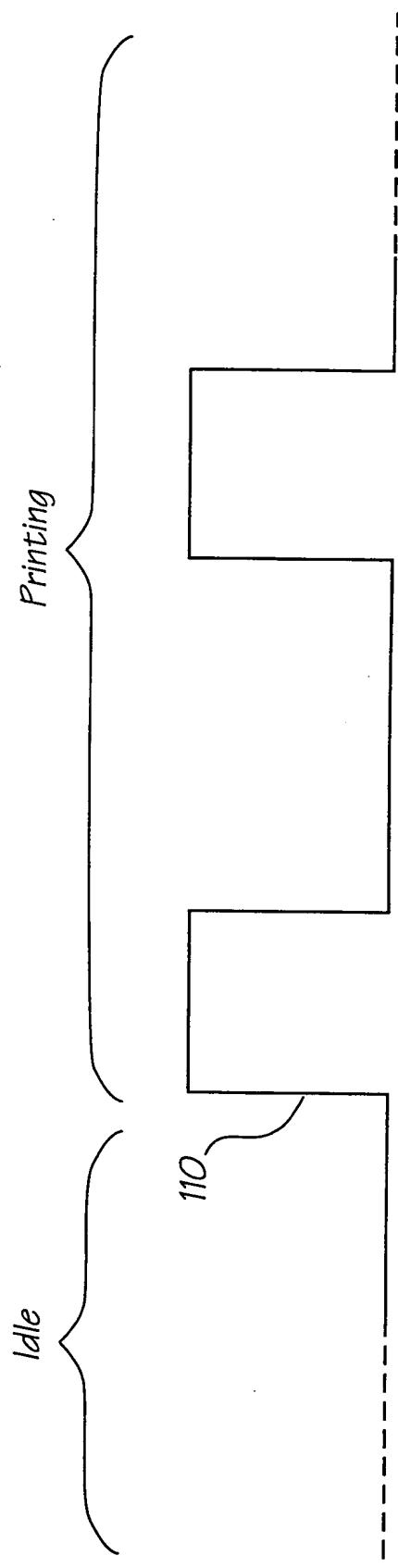


FIG. 13

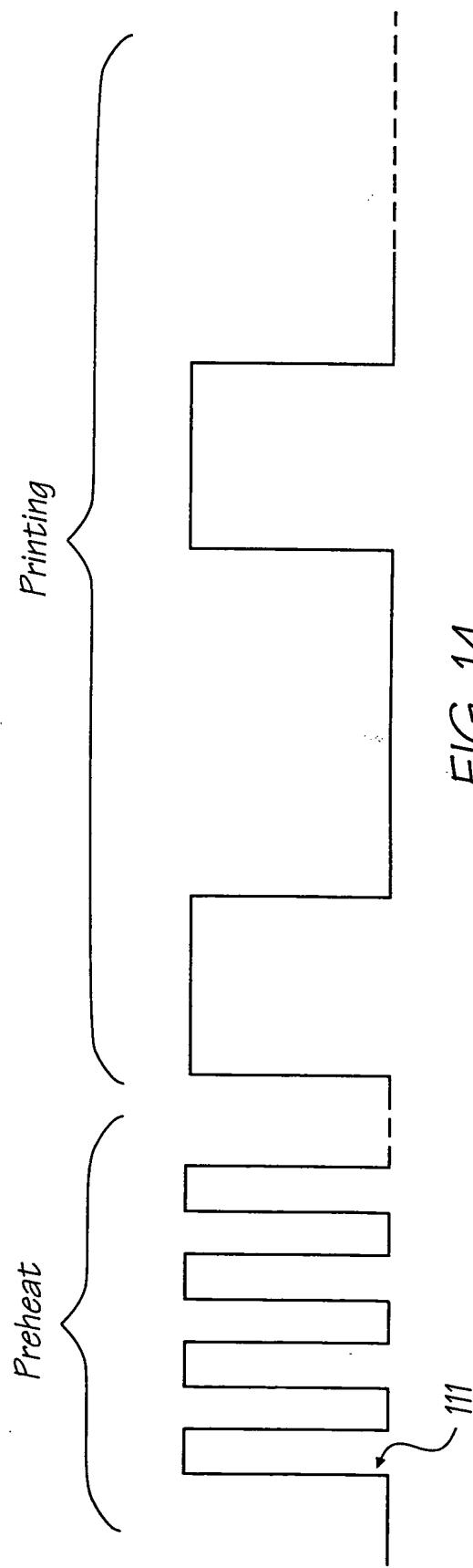


FIG. 14

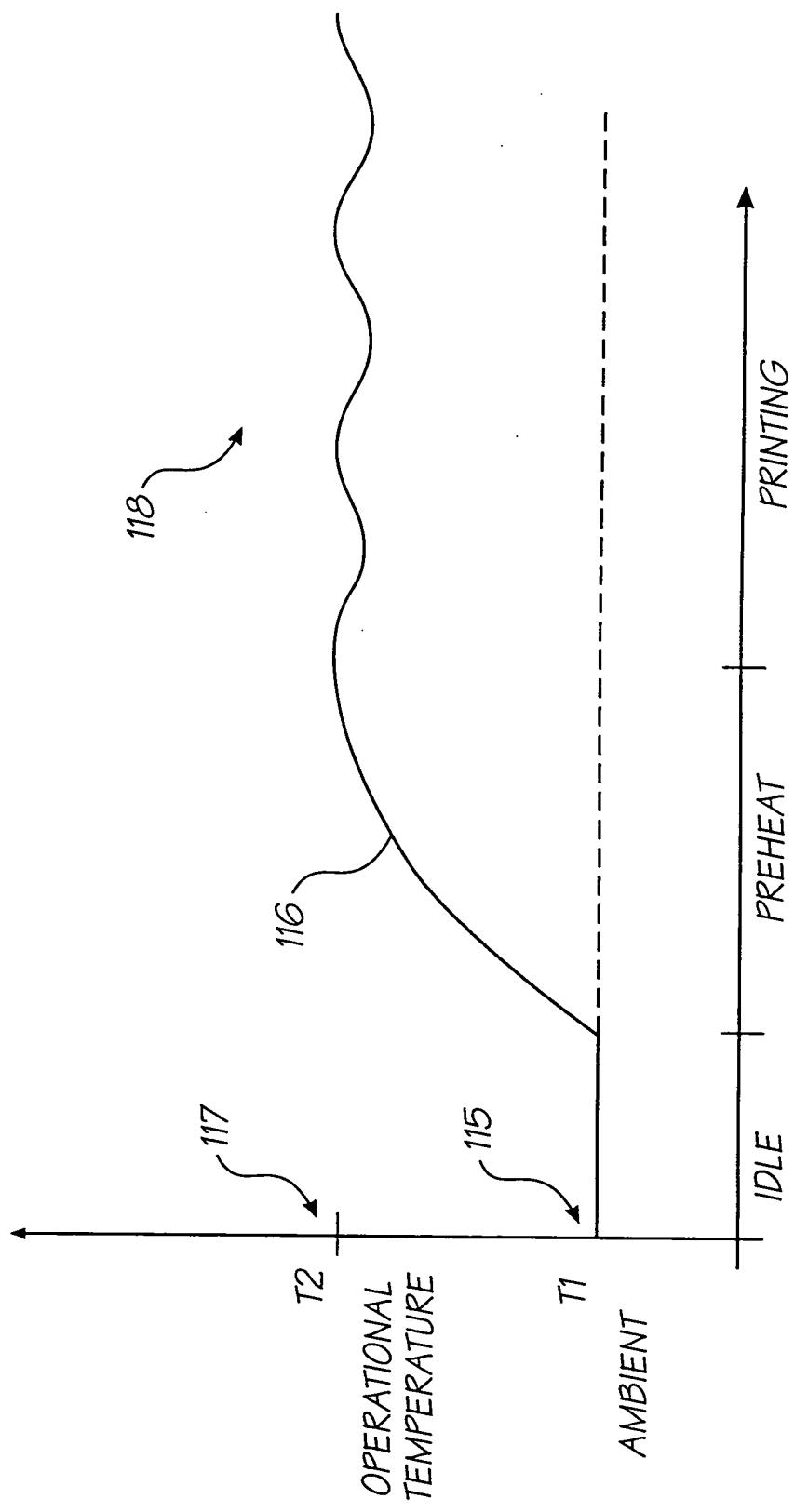


FIG. 15

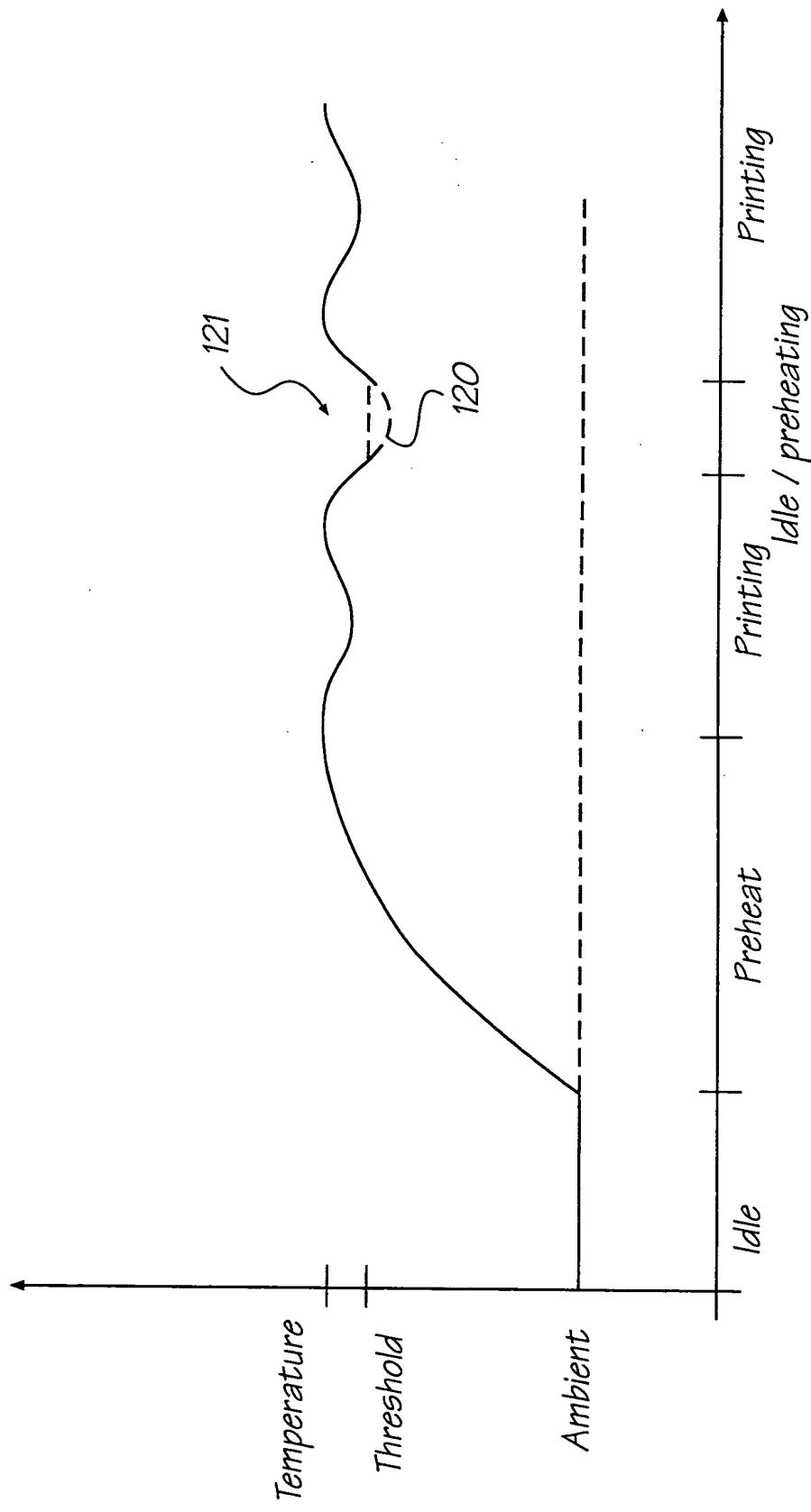


FIG. 16

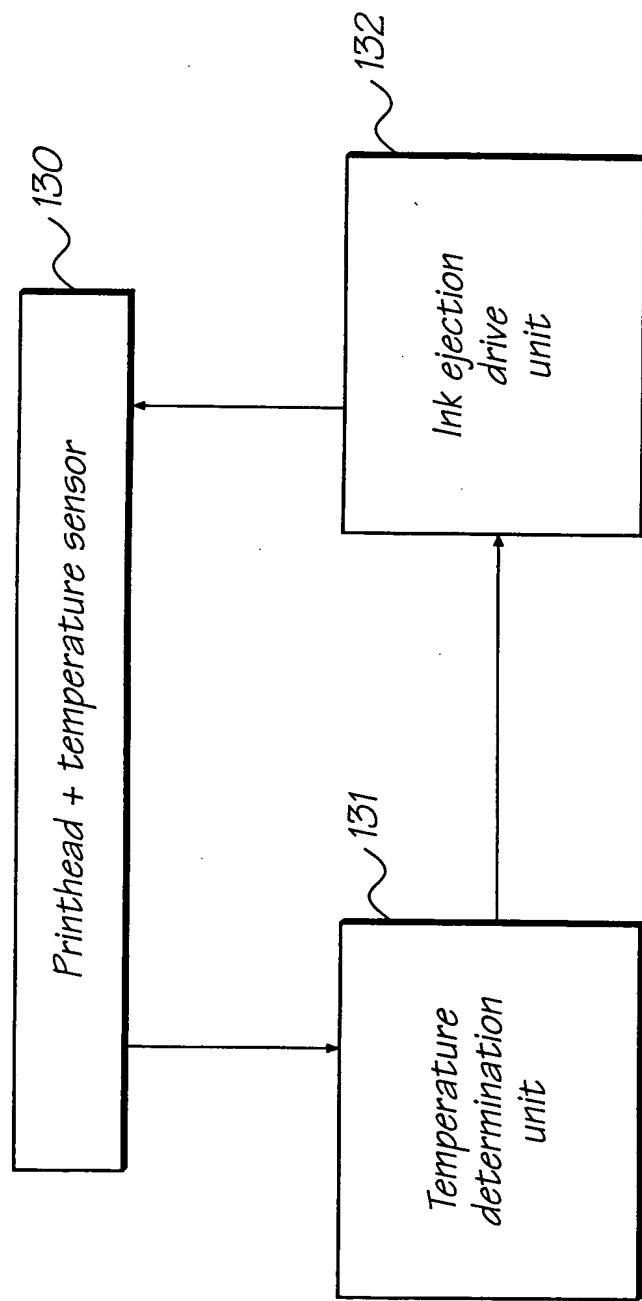


FIG. 17

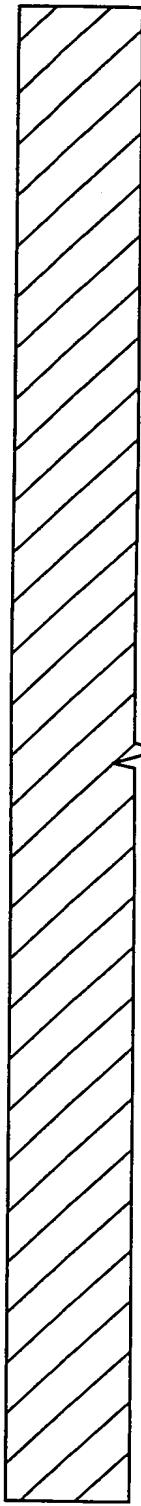


FIG. 18

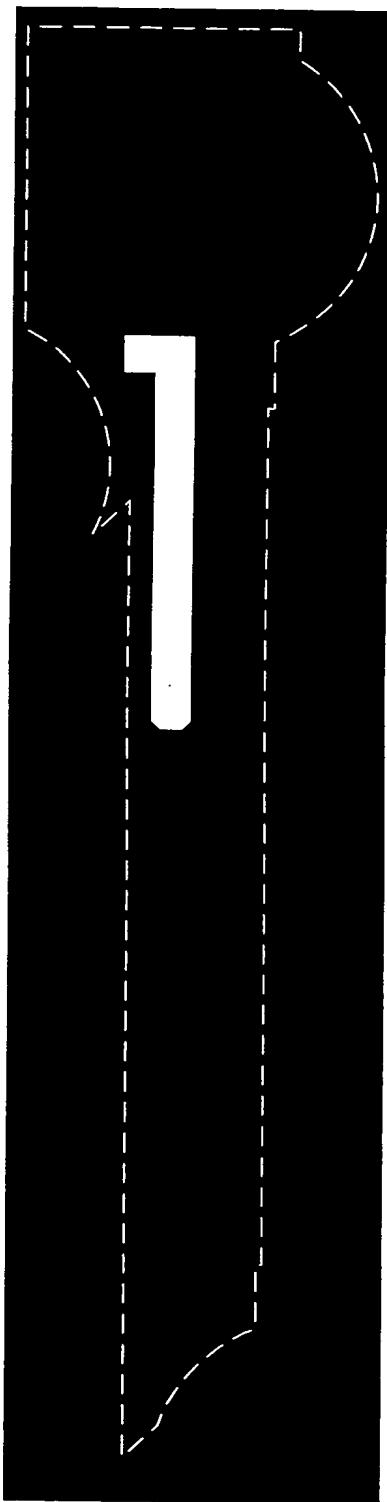
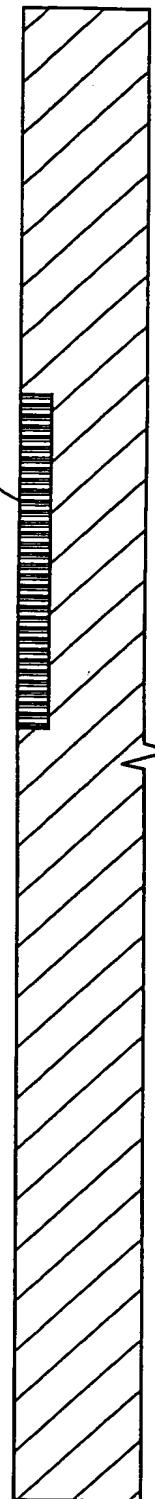


FIG. 19  
N-Well mask



Implant N-Well

FIG. 20

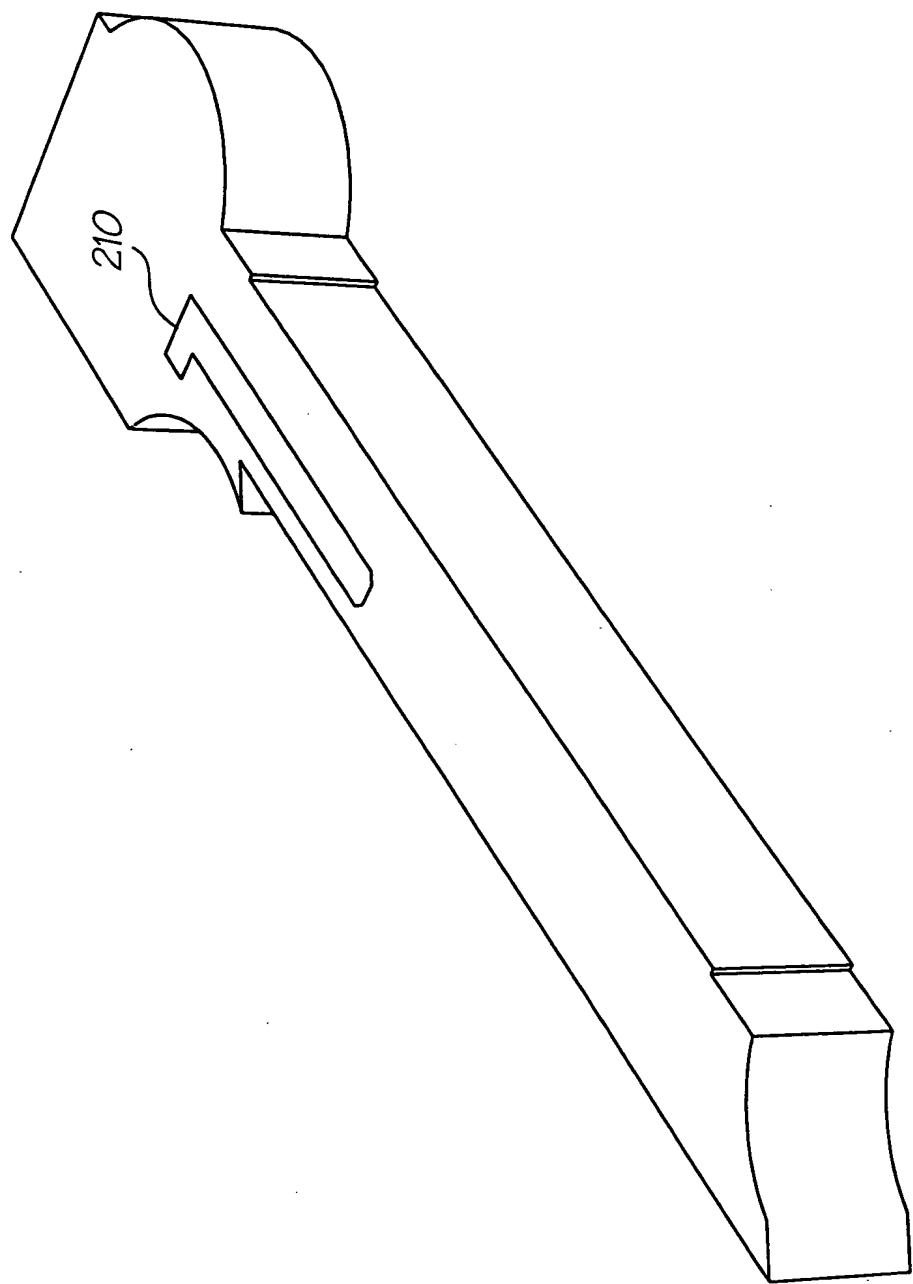
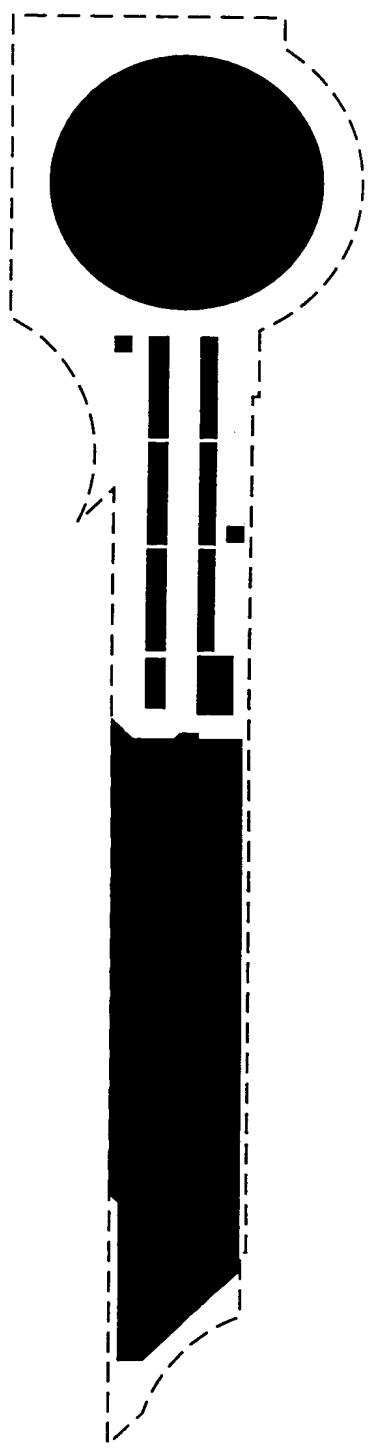
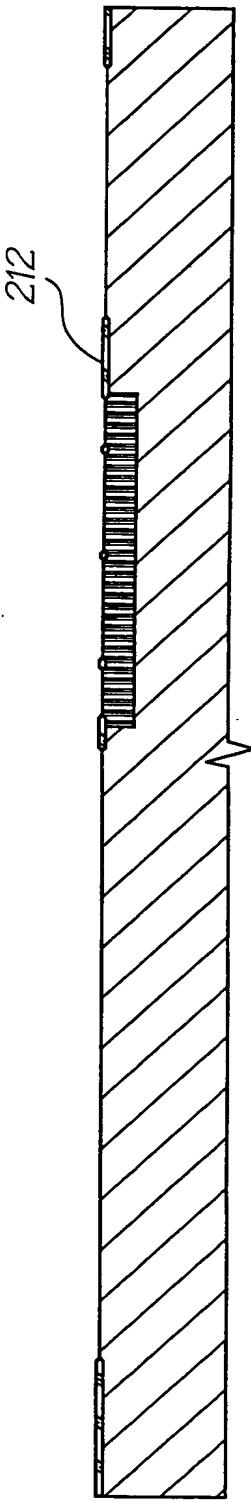


FIG. 21



Active mask

FIG. 22



Grow field oxide

FIG. 23

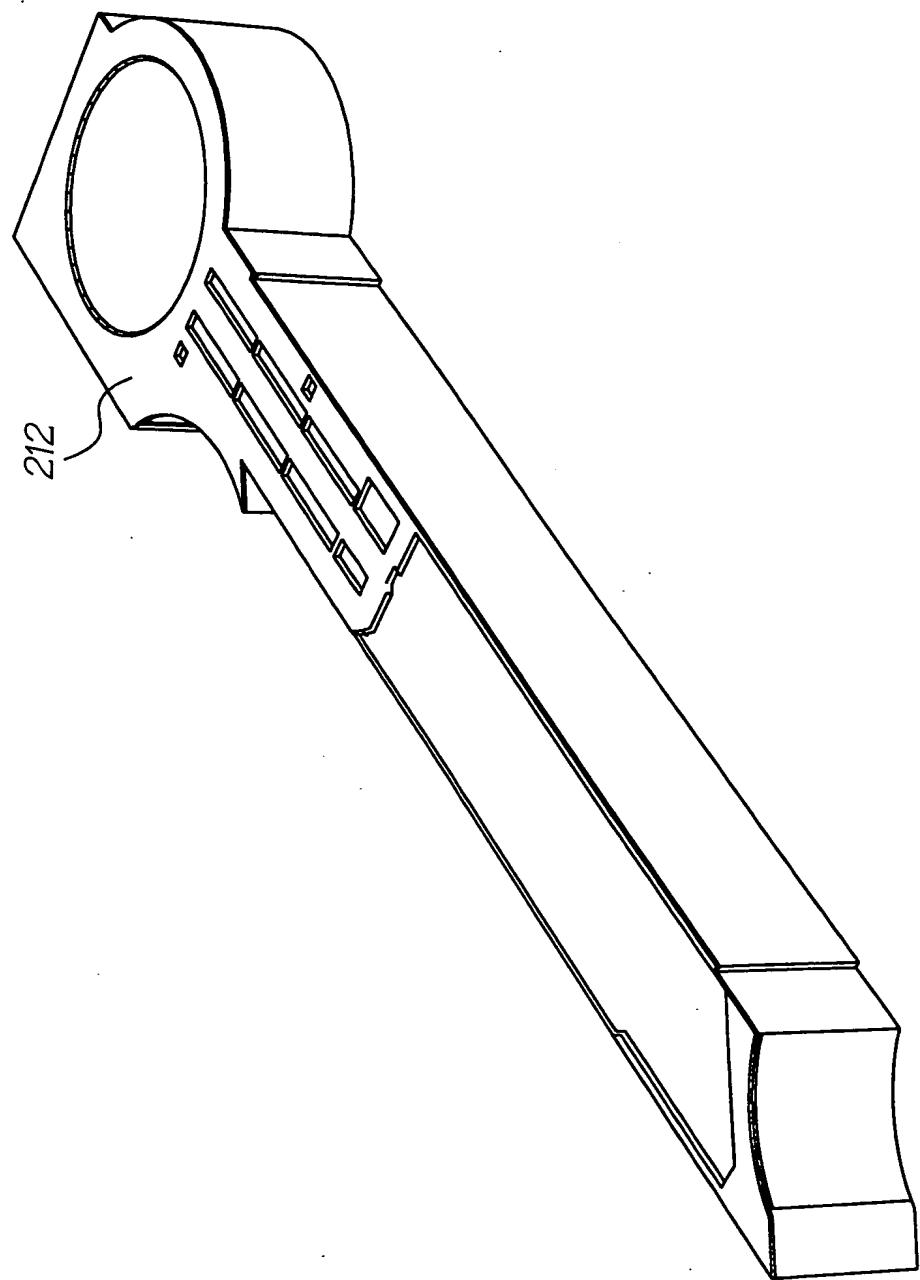
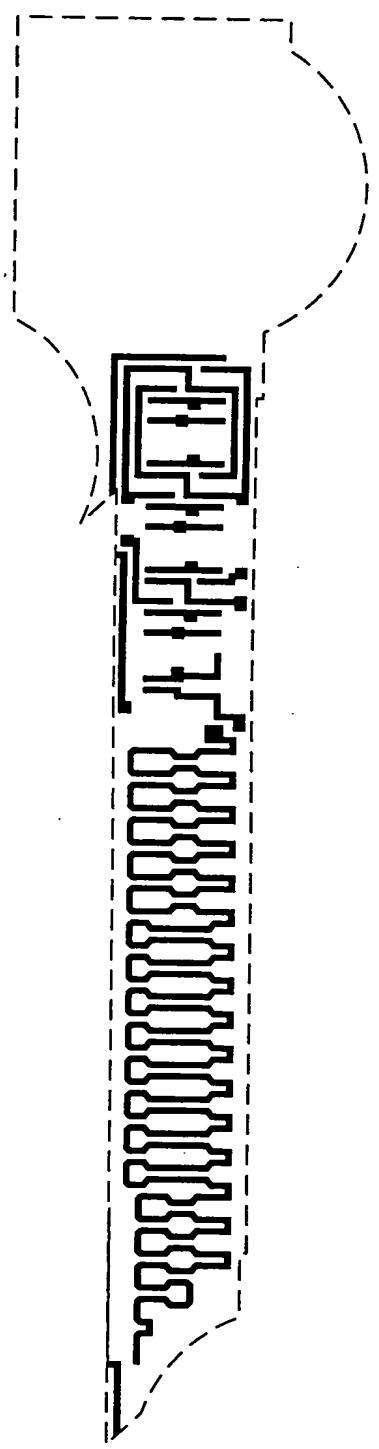
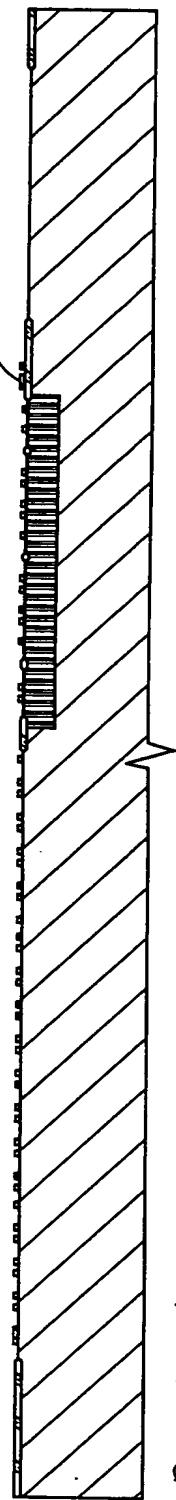


FIG. 24



Poly mask

FIG. 25



Deposit poly

FIG. 26

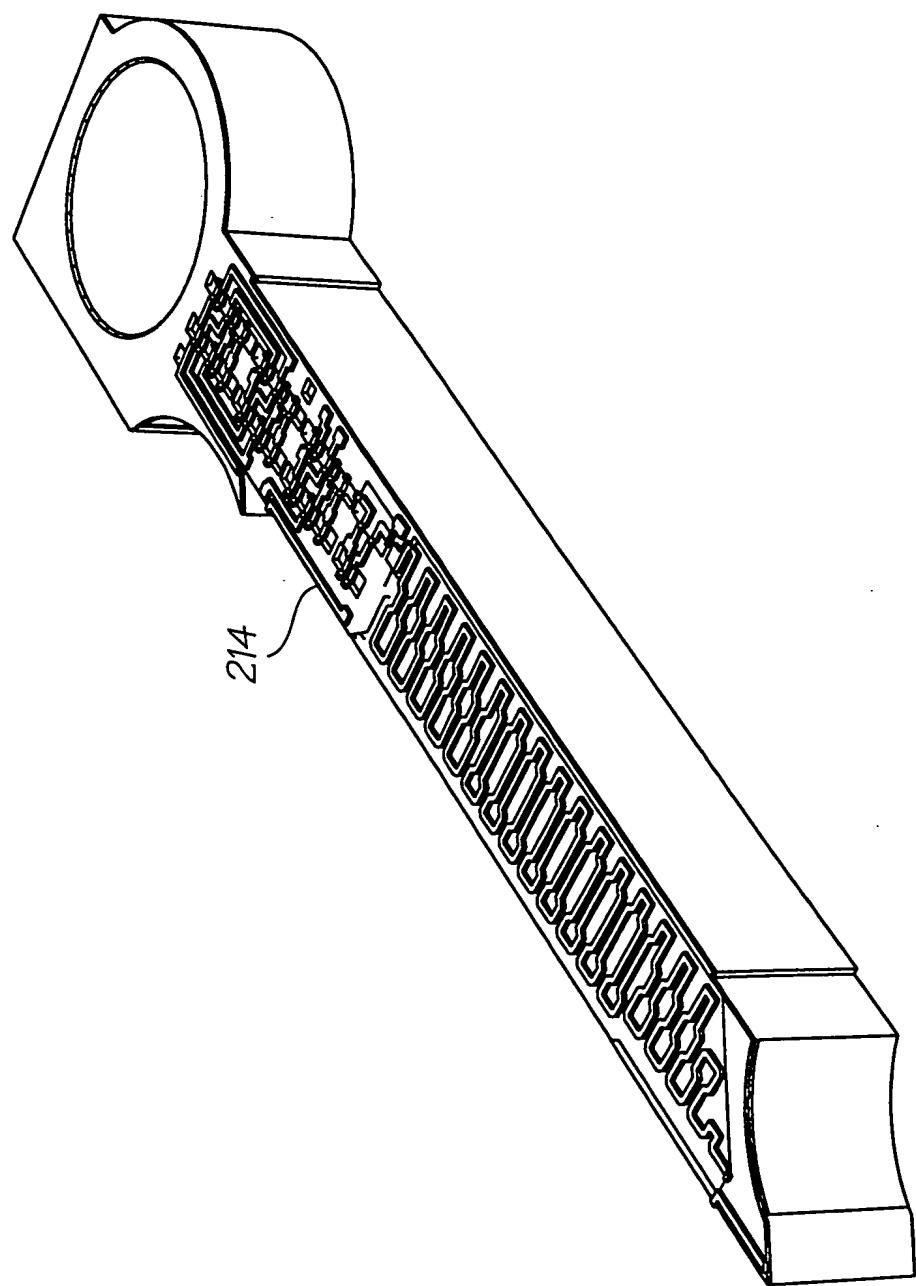


FIG. 27

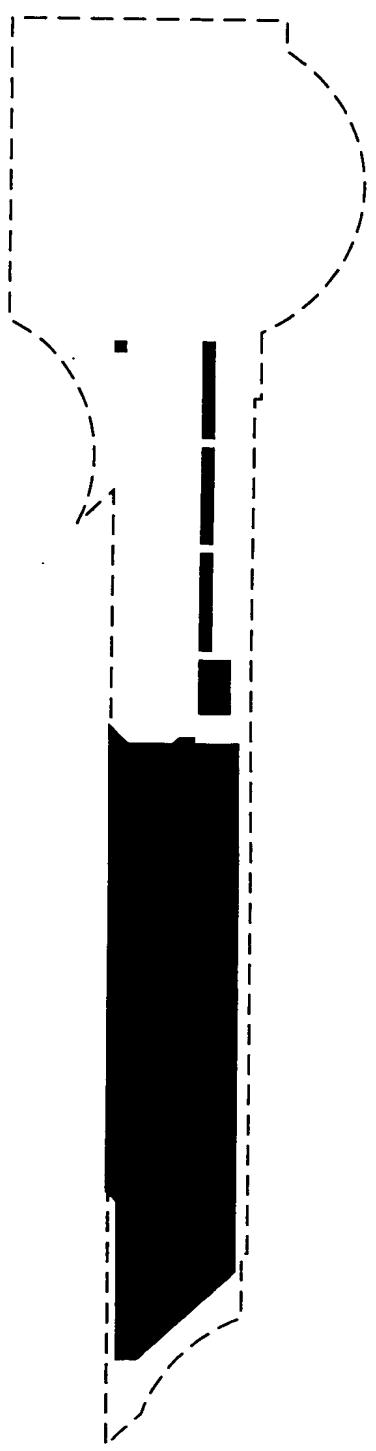


FIG. 28

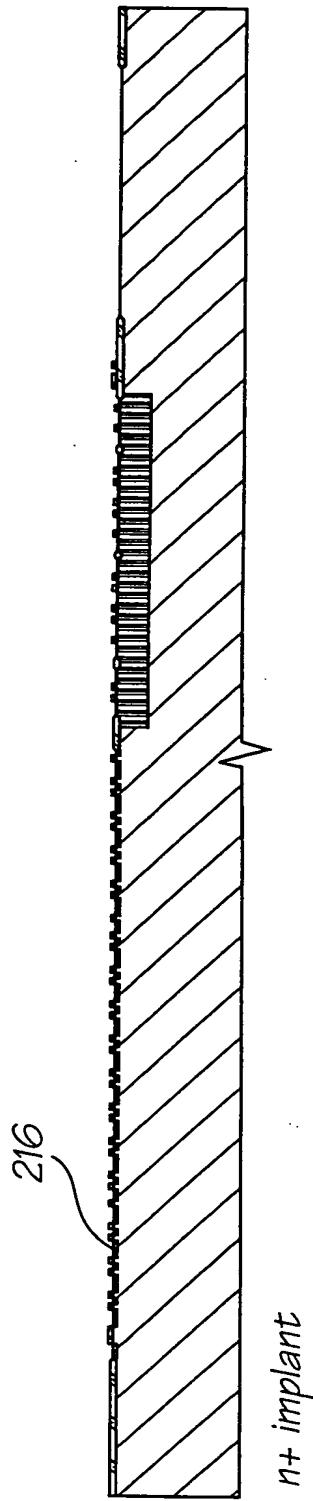


FIG. 29

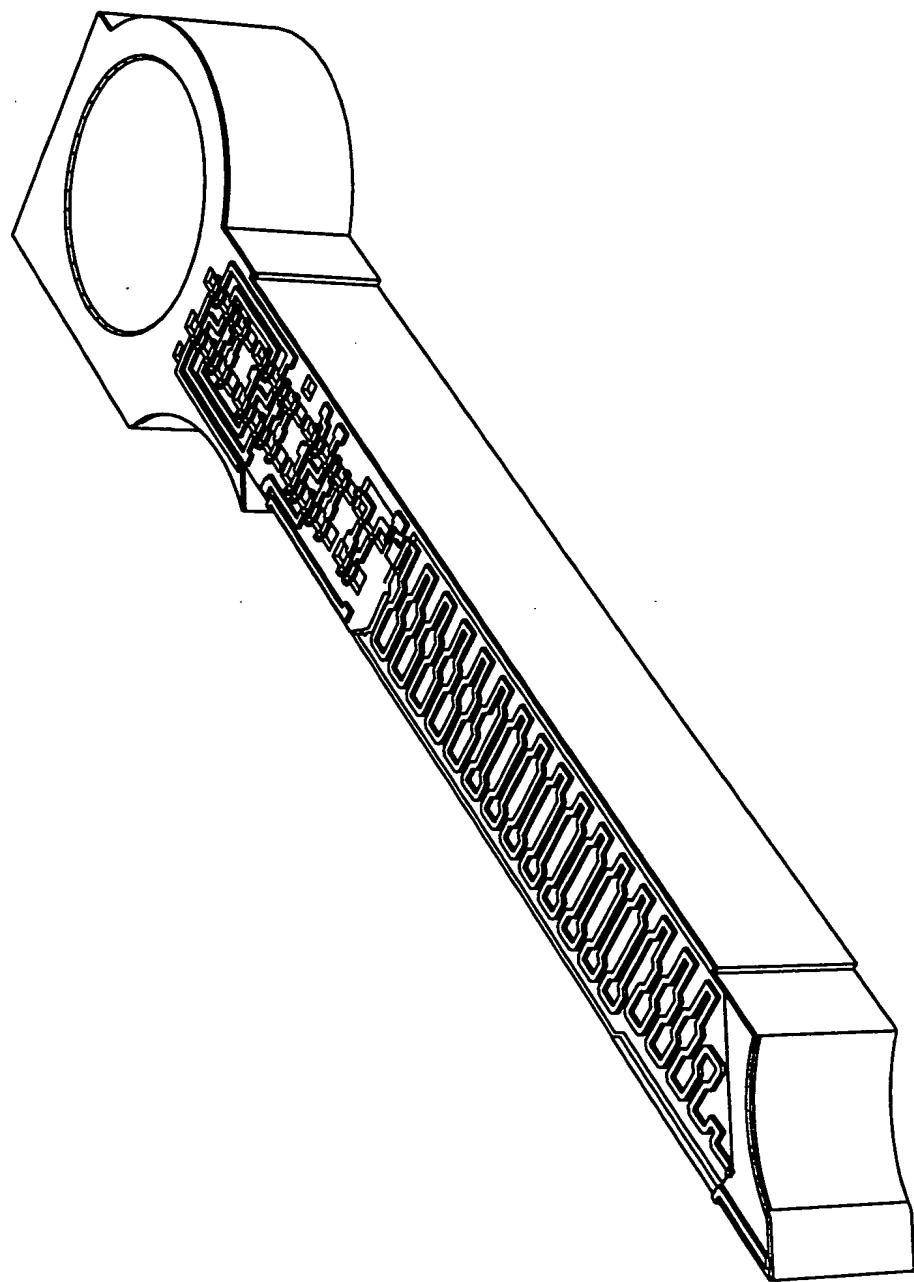
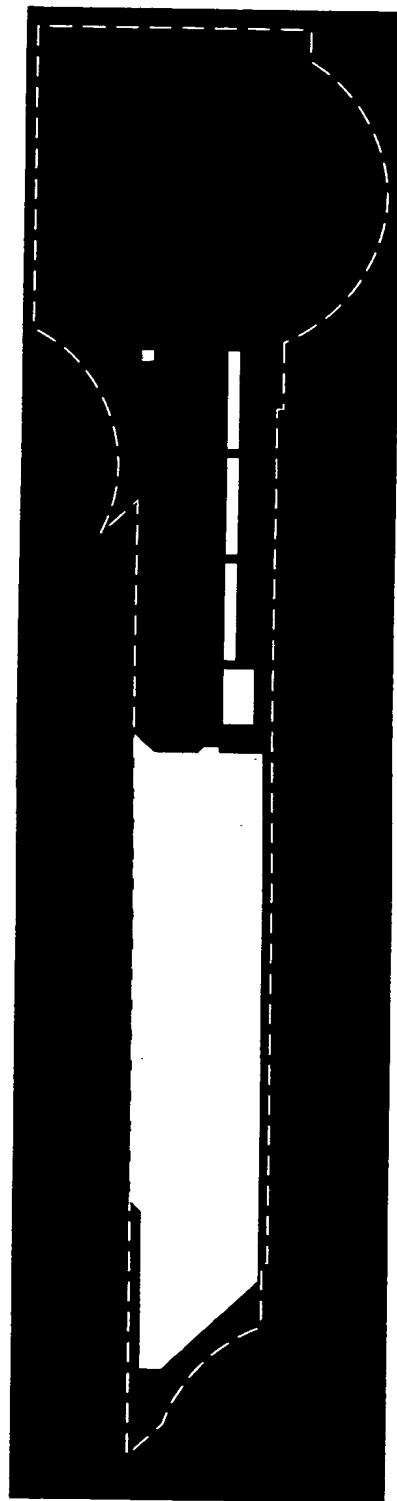
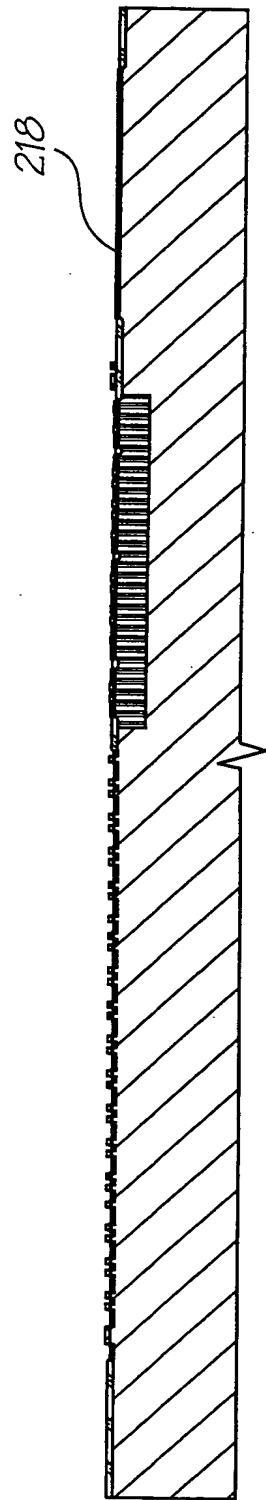


FIG. 30



*p+ mask*

*FIG. 31*



*p+ implant*

*FIG. 32*

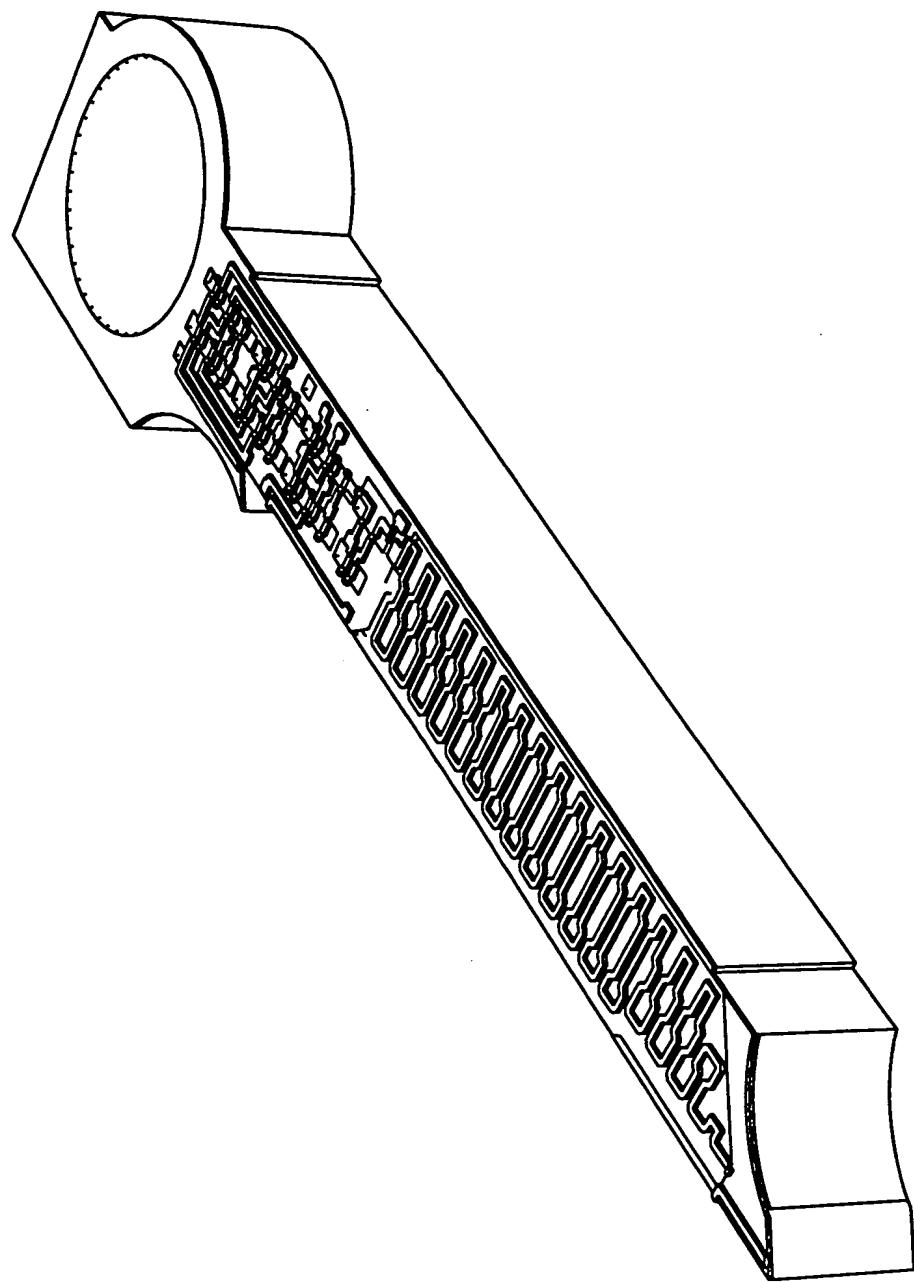
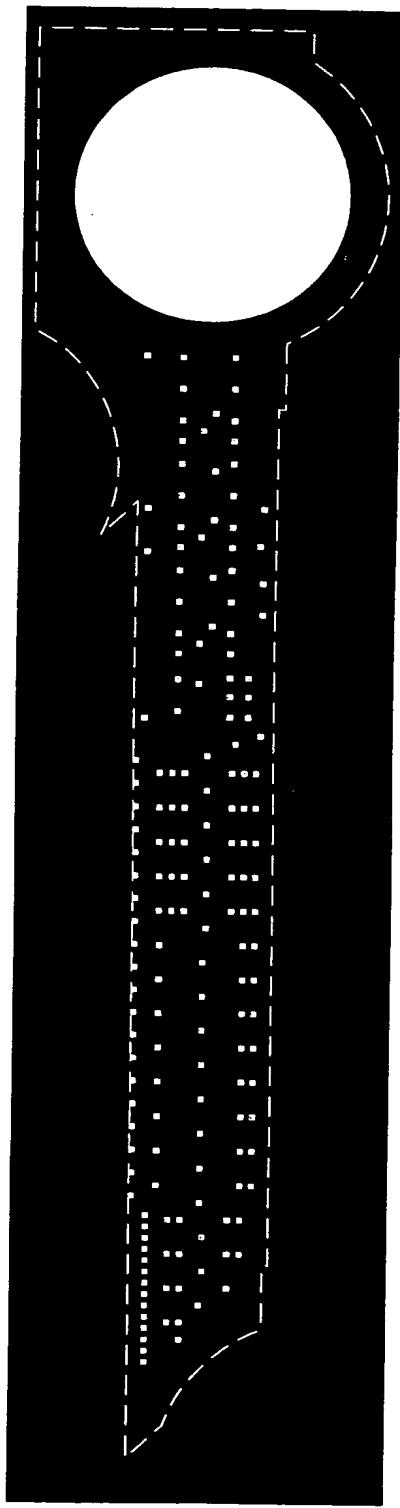
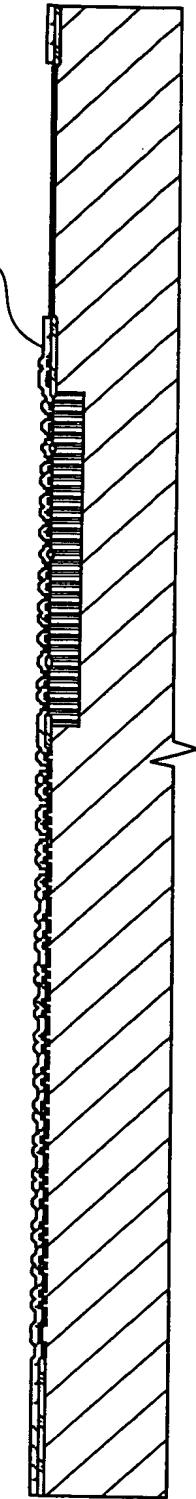


FIG. 33



Contacts mask

FIG. 34



Deposit ILD 1, etch contacts

FIG. 35

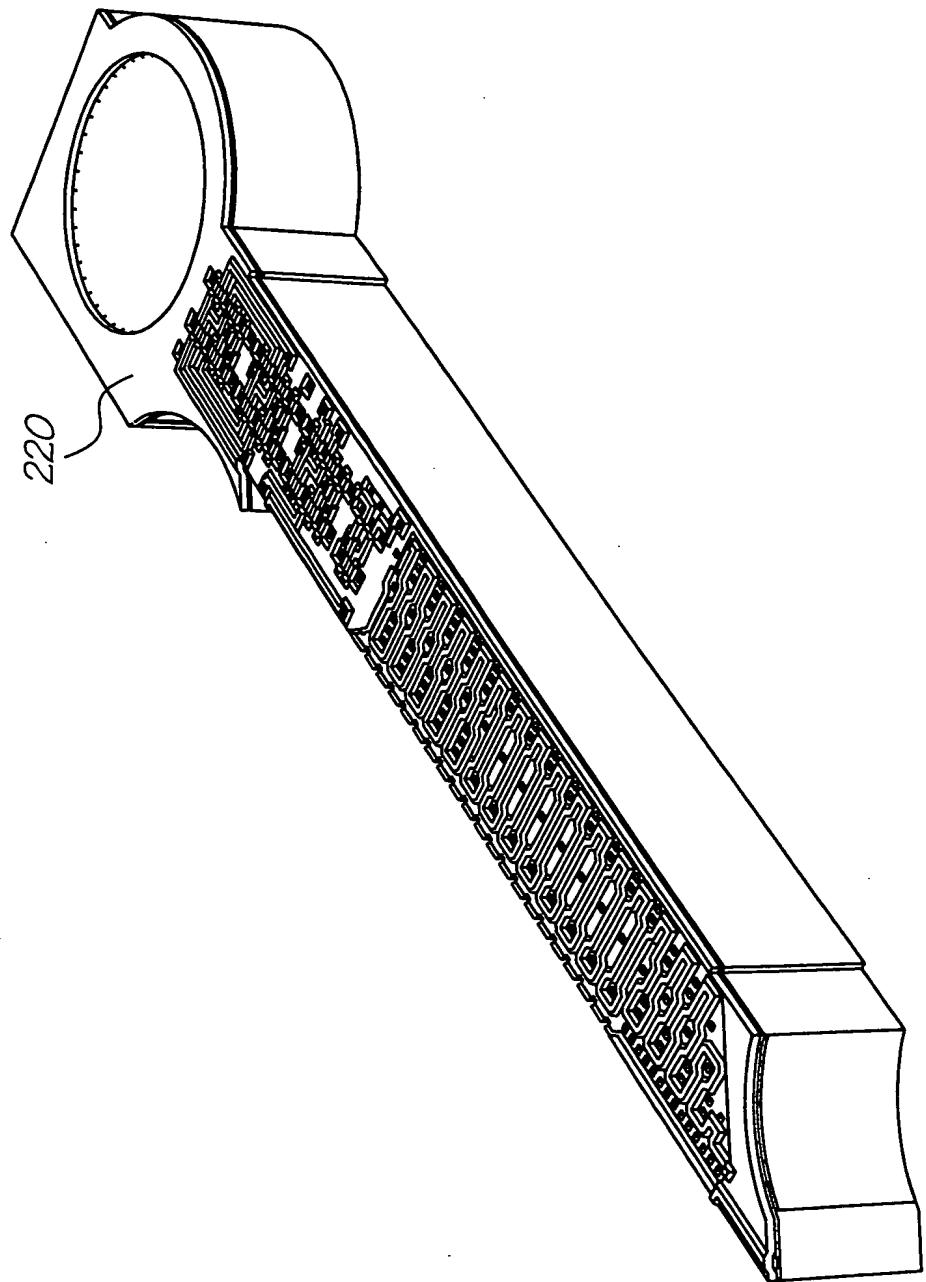
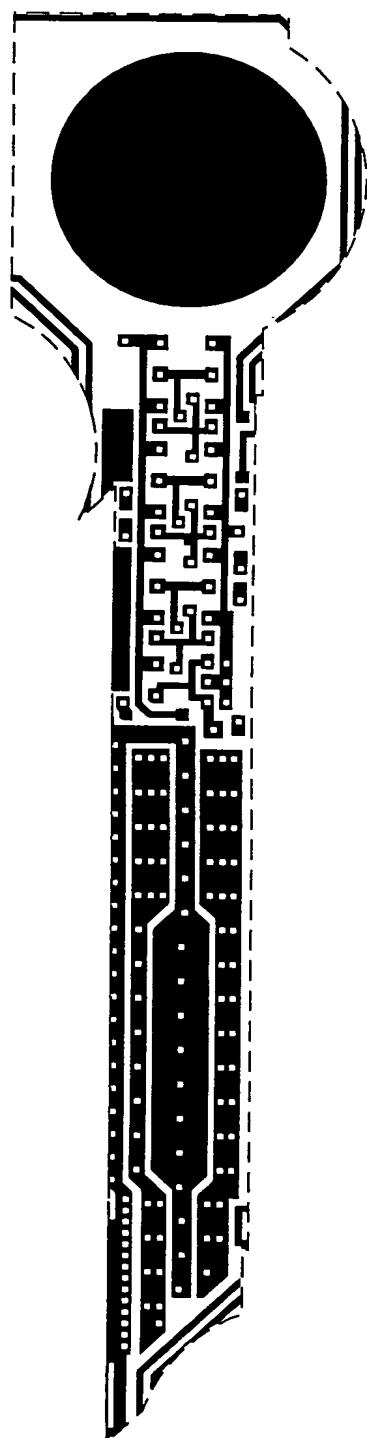
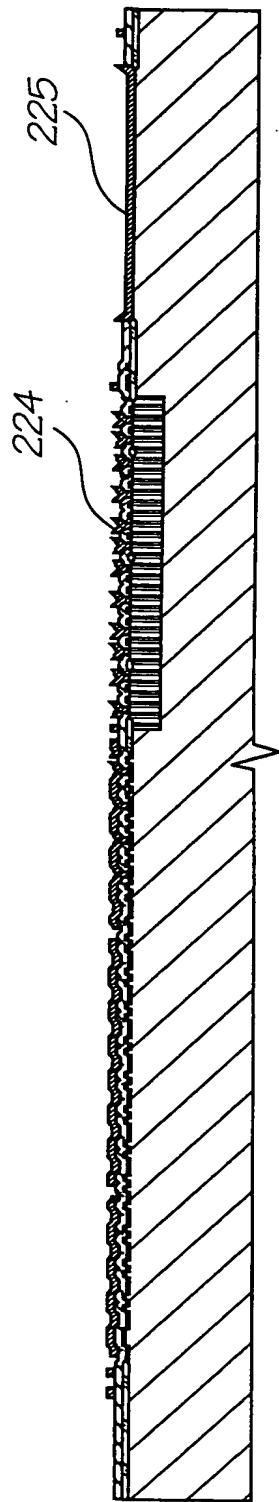


FIG. 36



Metal 1 mask

FIG. 37



Deposit Metal 1

FIG. 38

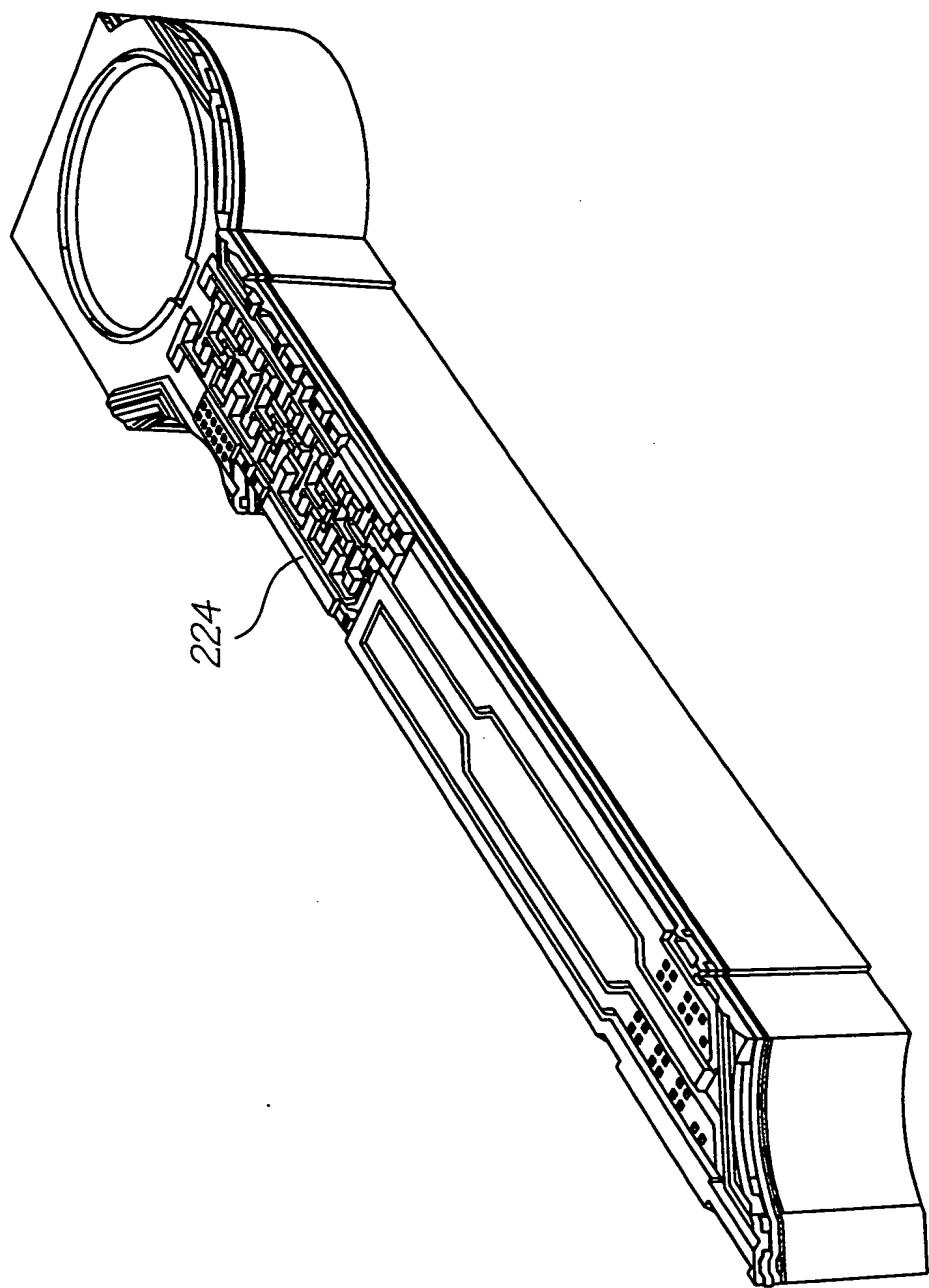
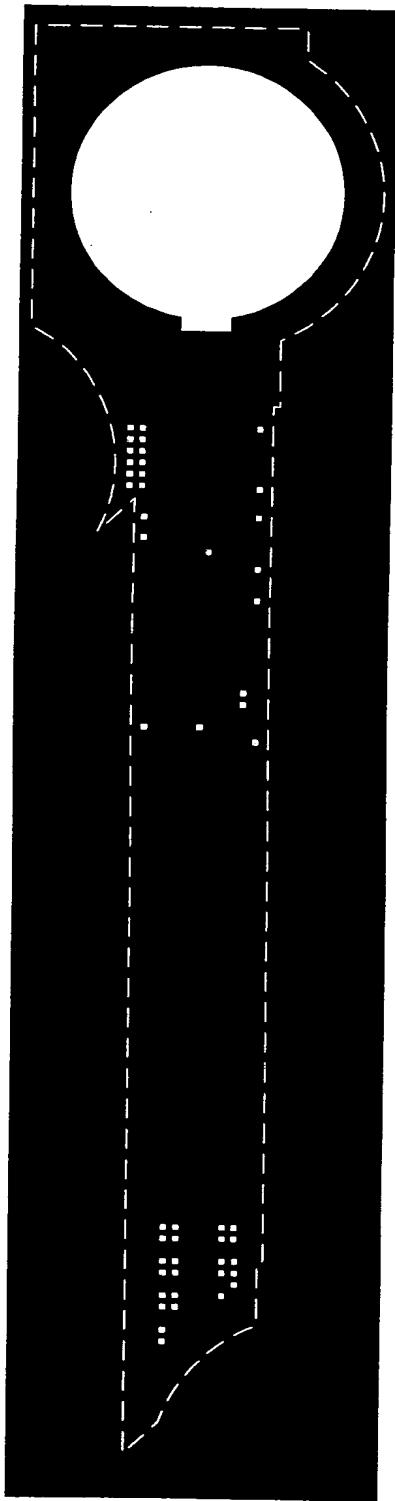
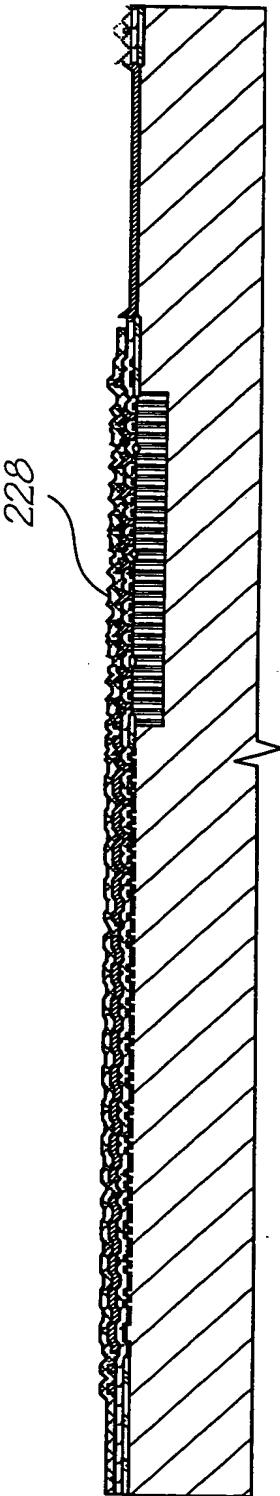


FIG. 3.9



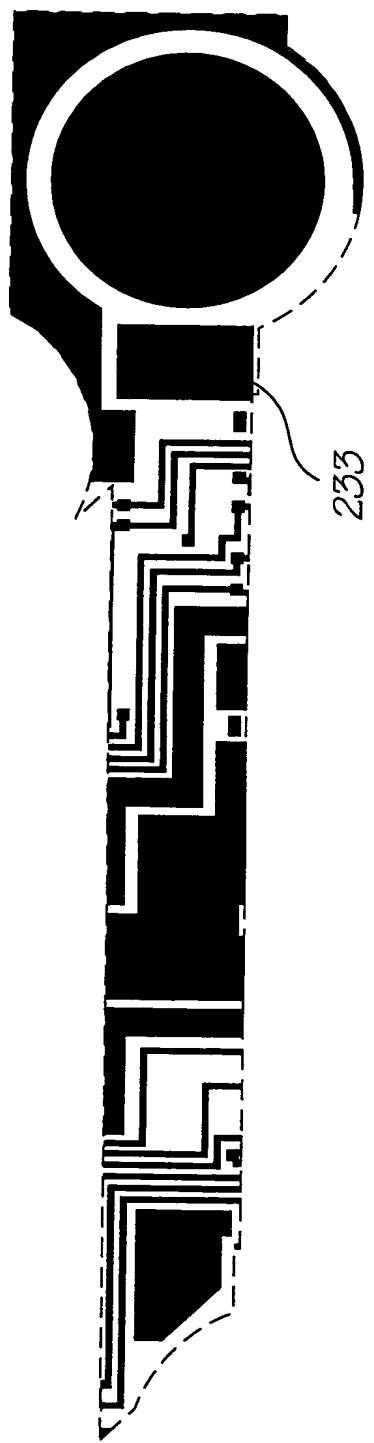
Via 1 mask

FIG. 40



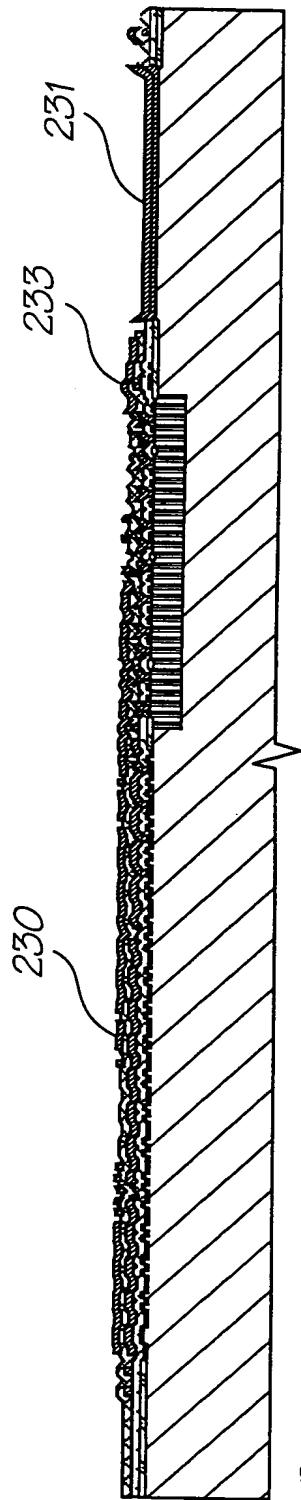
Deposit ILD 2, etch via

FIG. 41



Metal 2 mask

FIG. 42



Deposit metal 2

FIG. 43

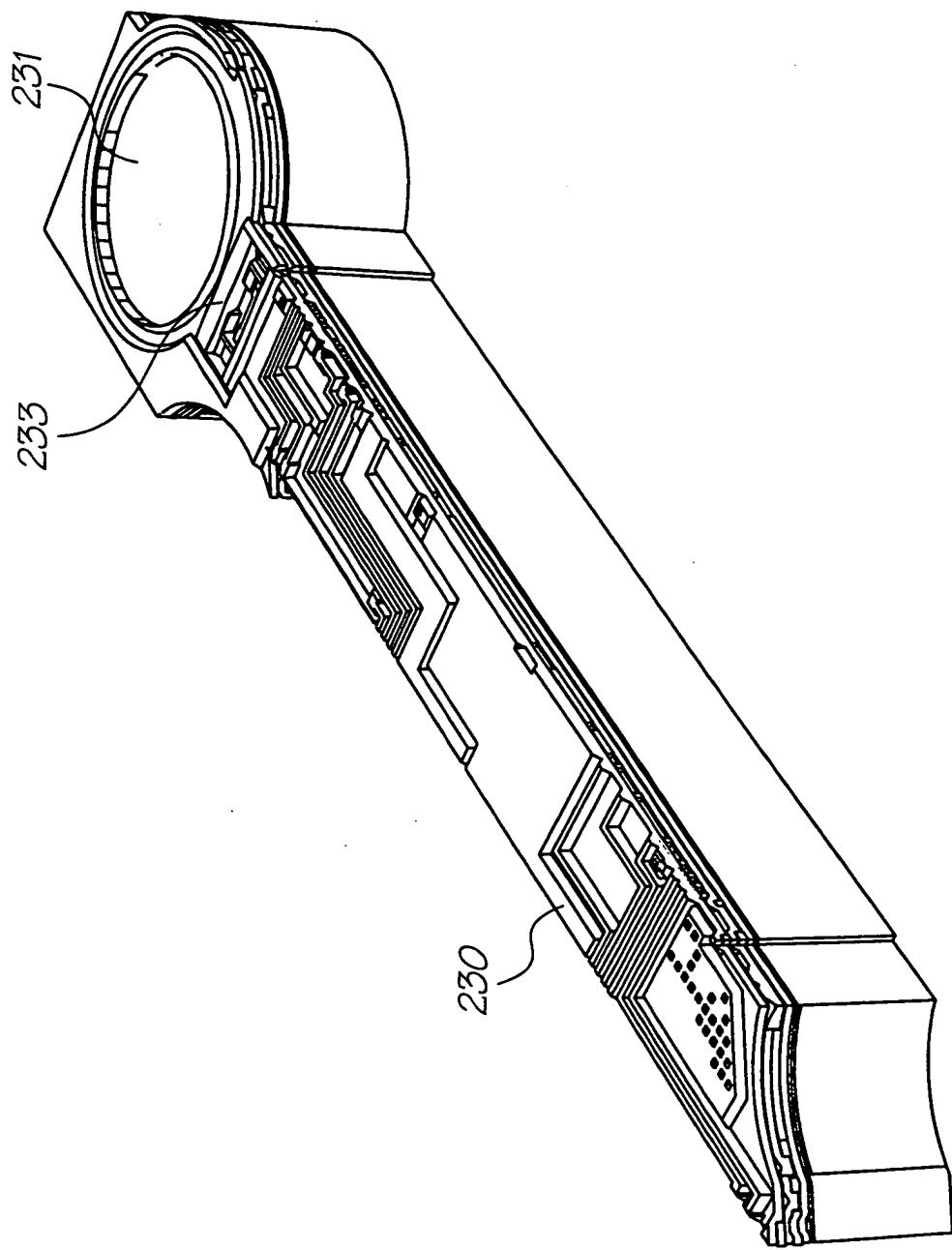
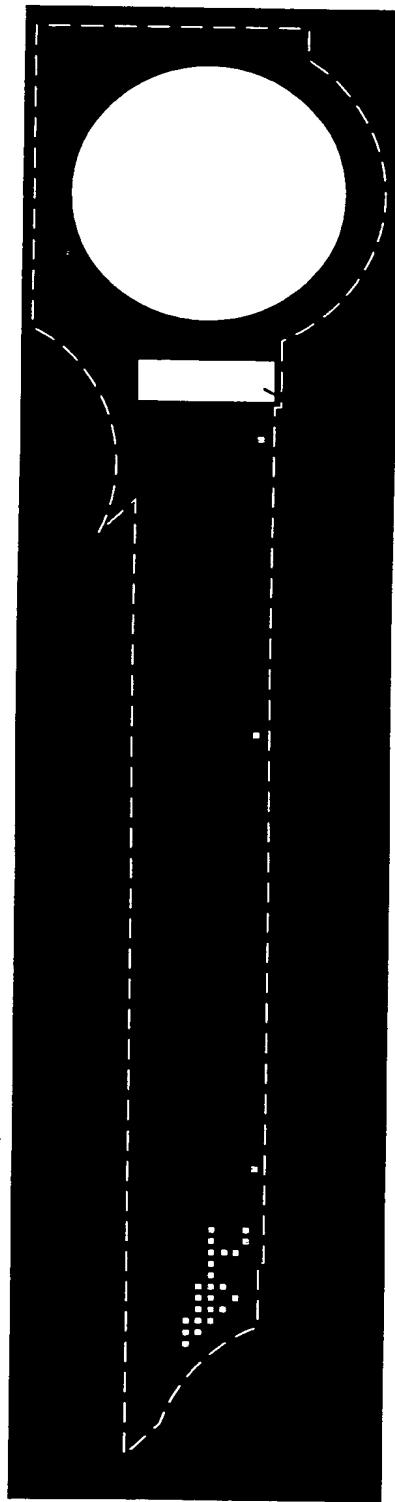
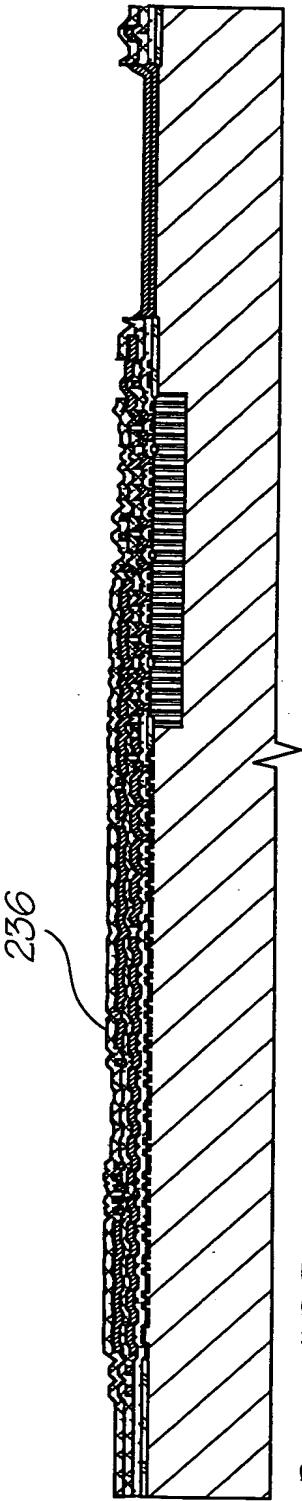


FIG. 44



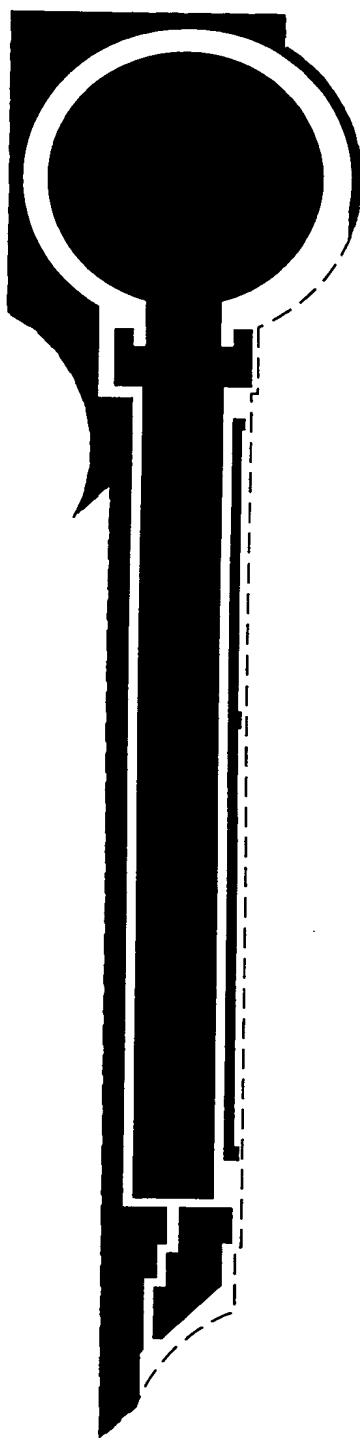
Via 2 mask

FIG. 45



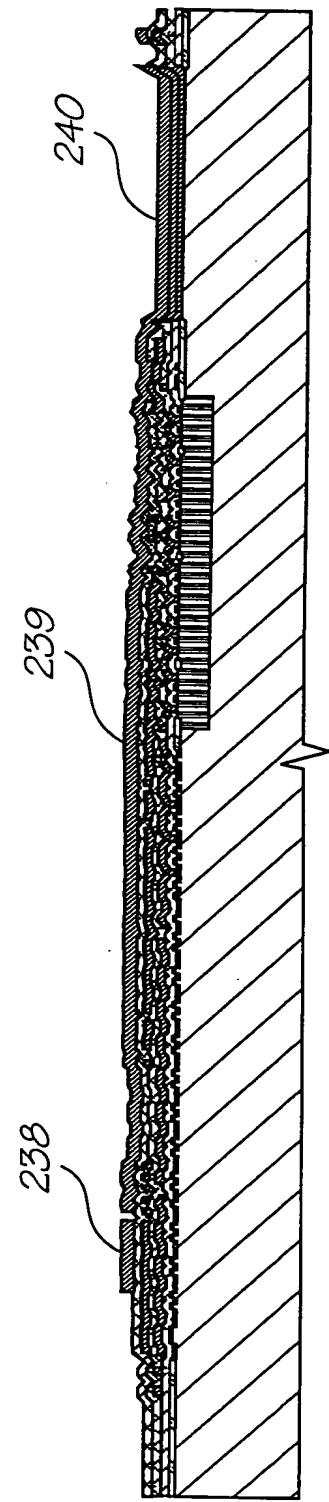
Deposit ILD 3, etch vias

FIG. 46



Metal 3 mask

FIG. 47



Deposit metal 3

FIG. 48

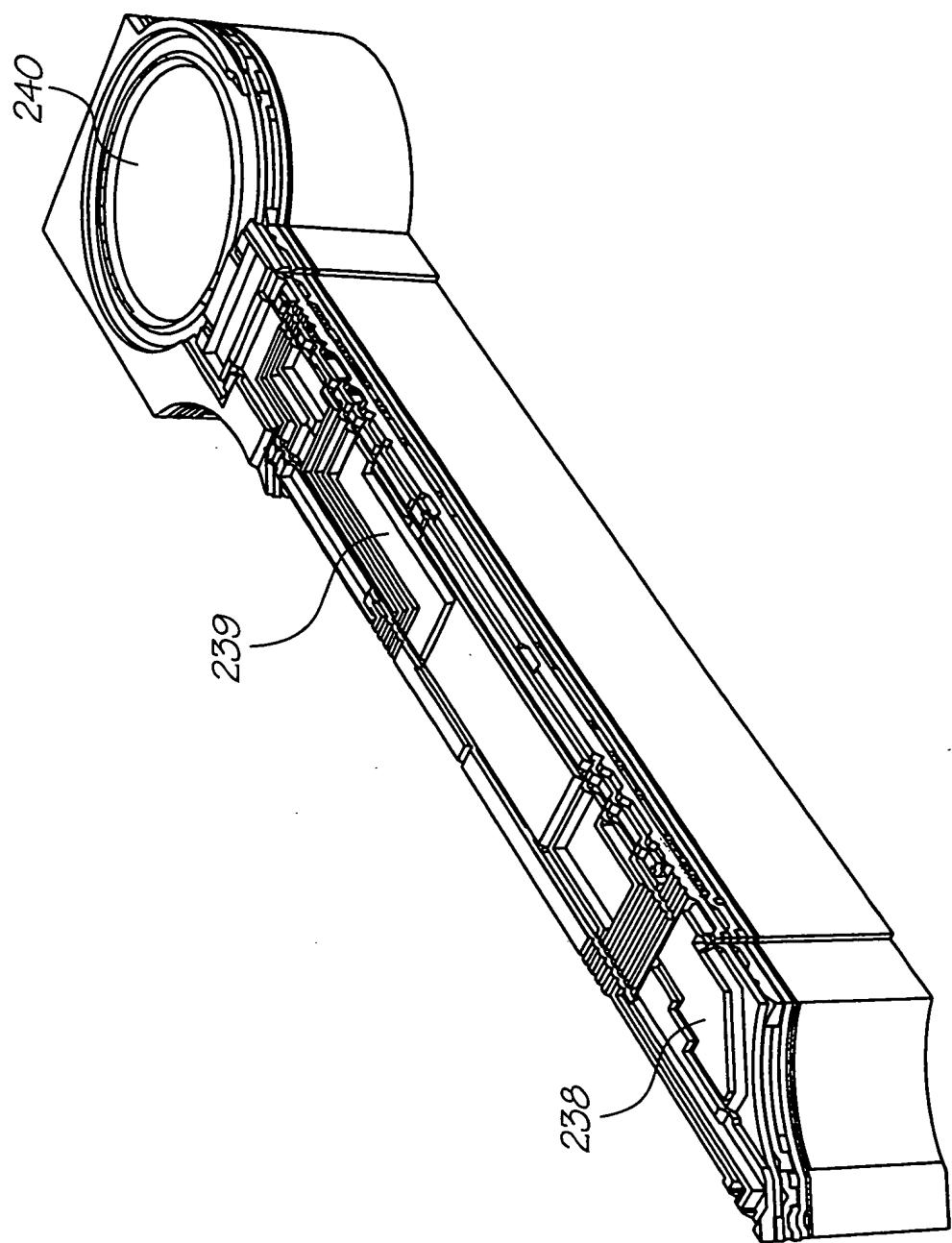
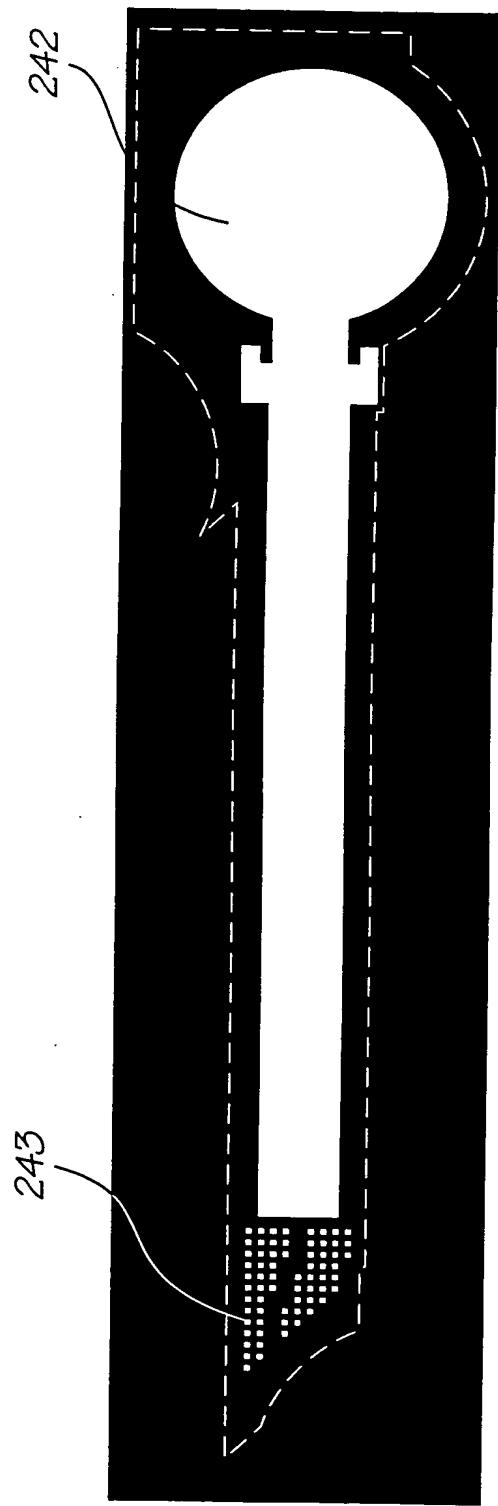
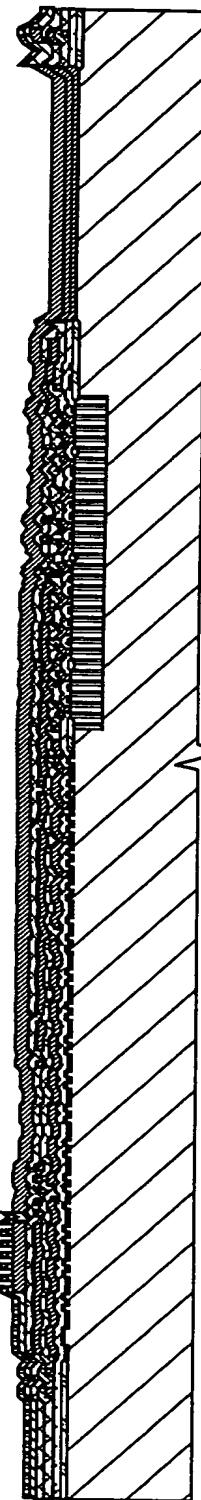


FIG. 49



Via 3 / Passivation mask

FIG. 50



Deposit passivation oxide & nitride, etch vias

FIG. 51

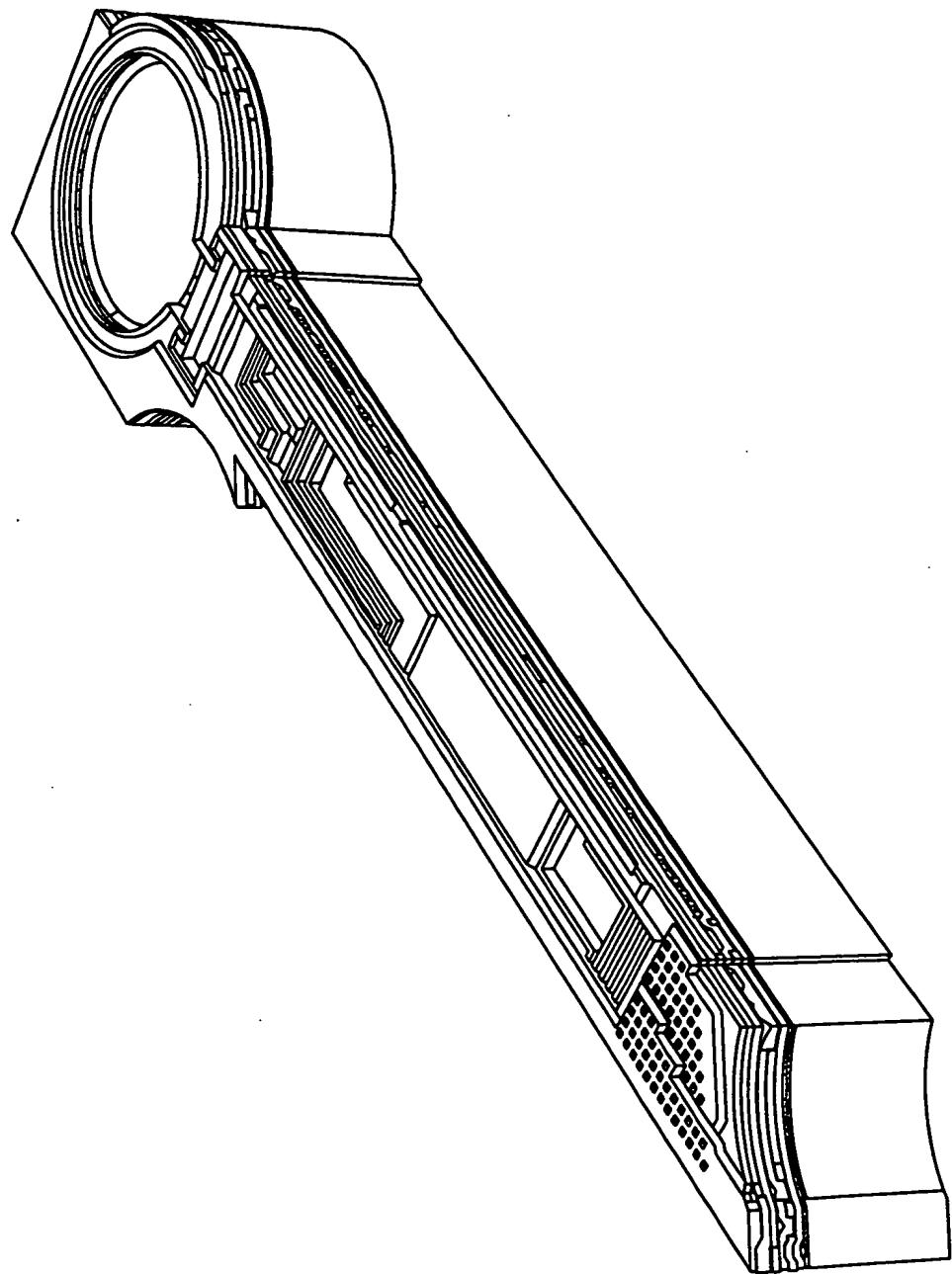
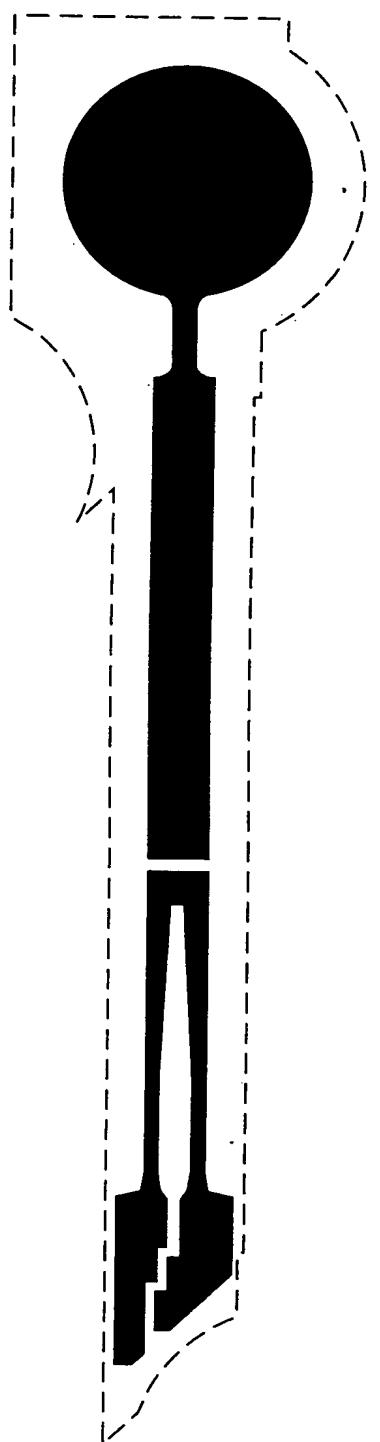
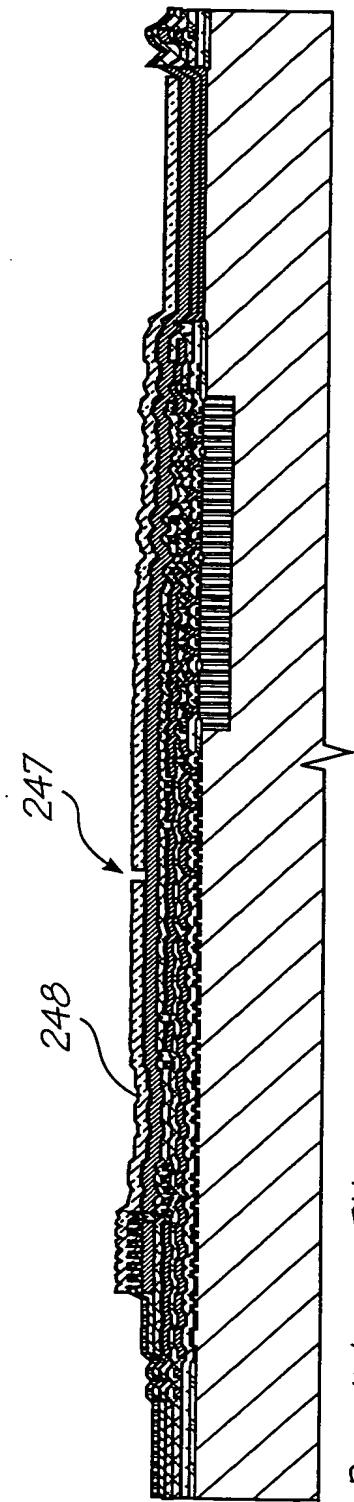


FIG. 52



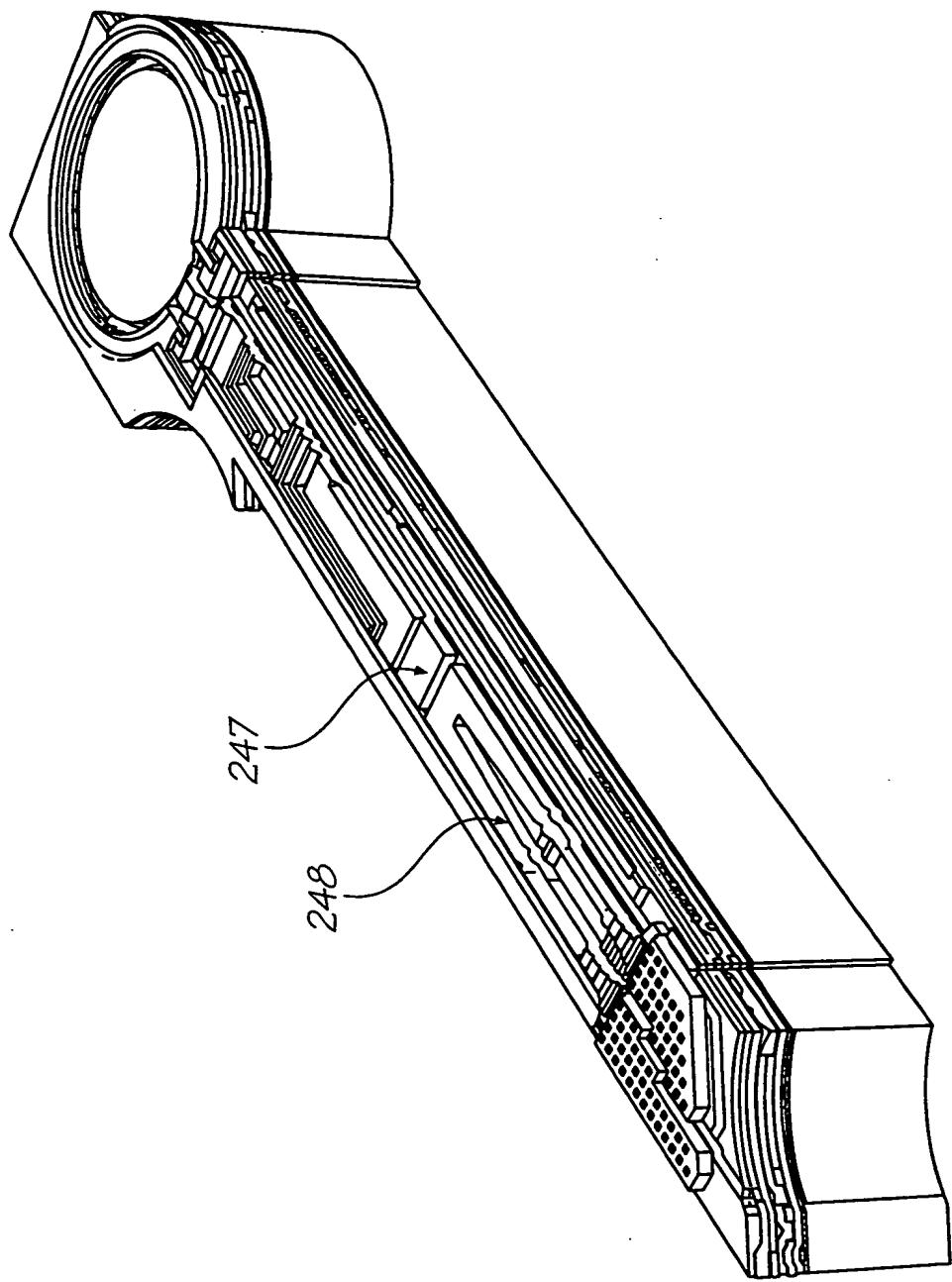
Heater mask

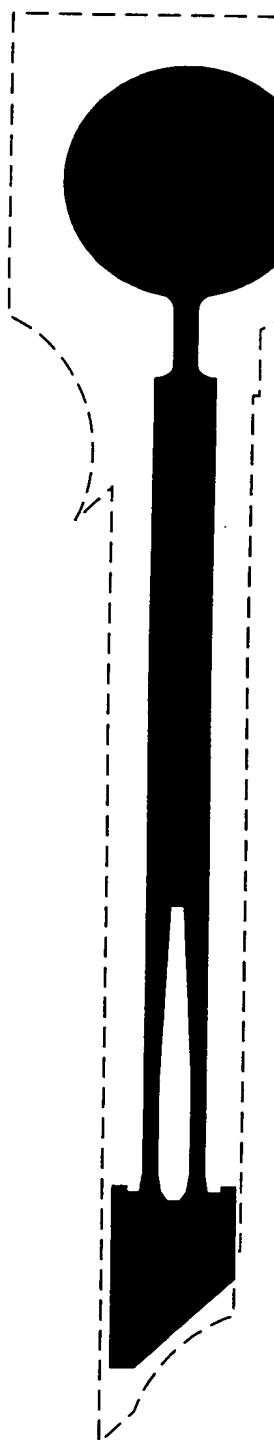
FIG. 53



Deposit heater TiN

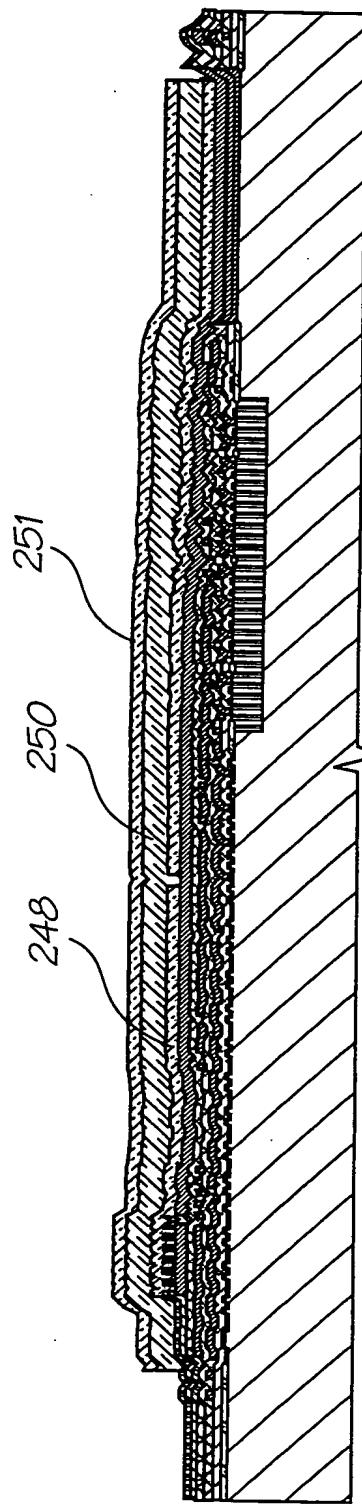
FIG. 54





Actuator / bend compensator mask

FIG. 56



Deposit actuator glass and bend compensator TiN, etch together

FIG. 57

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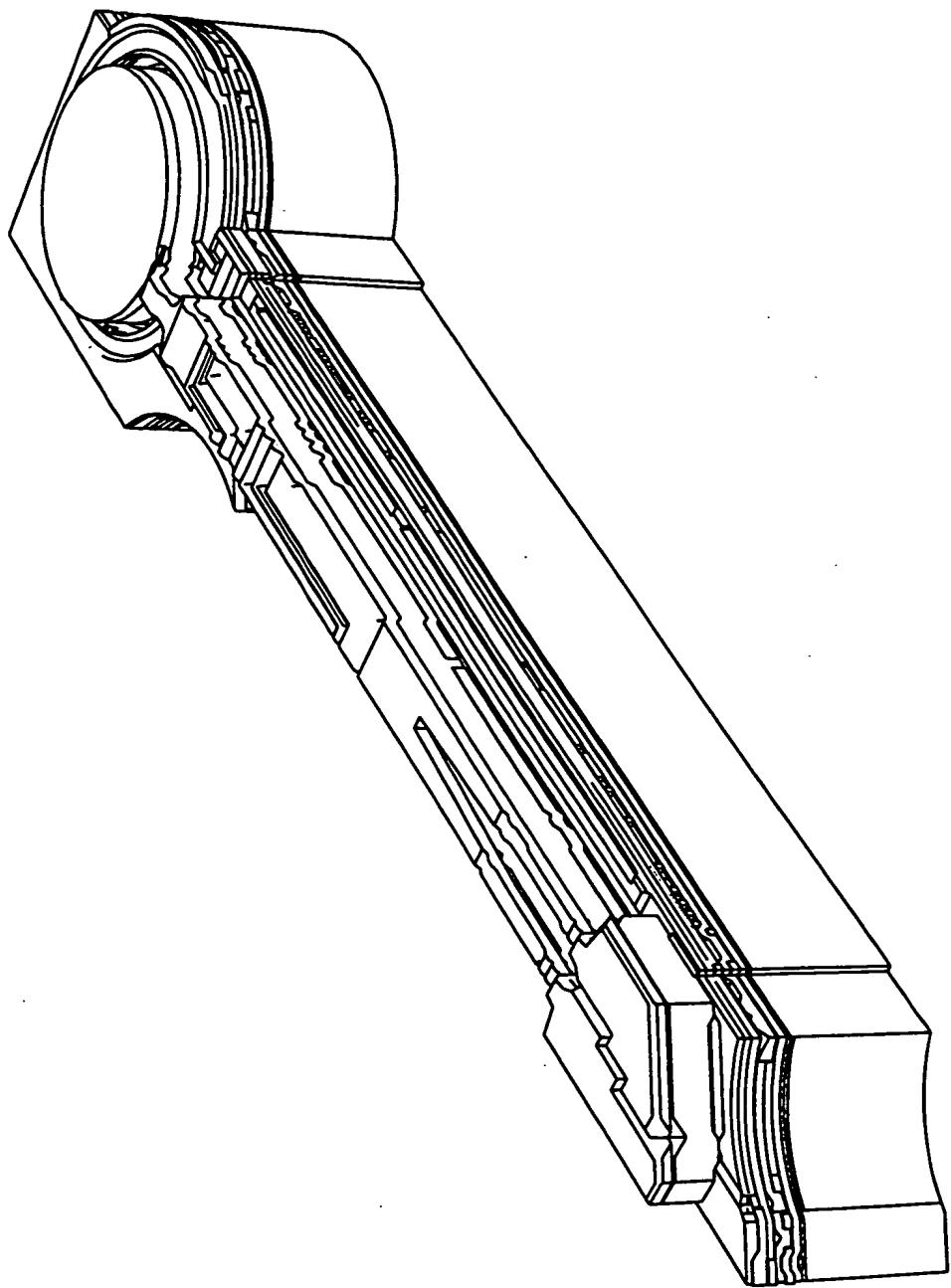
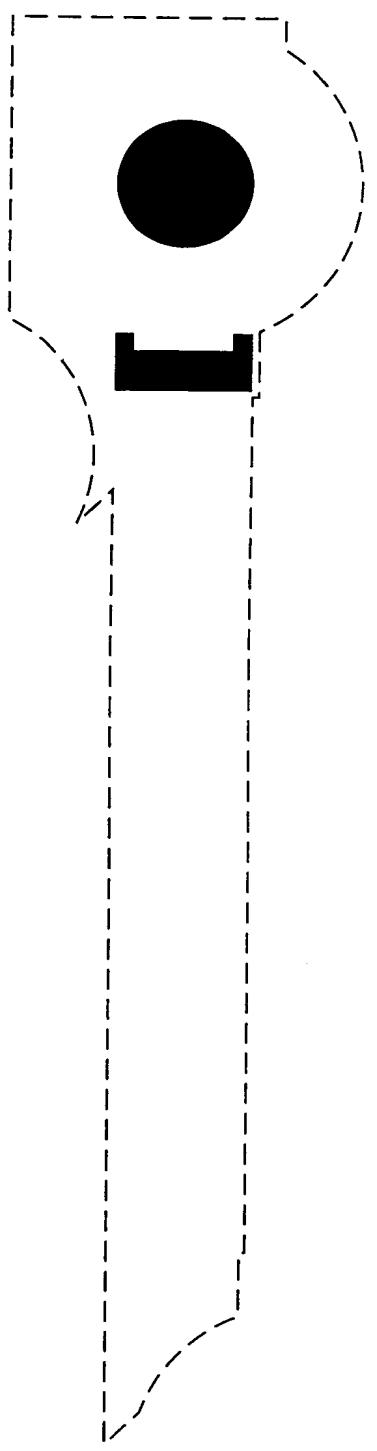


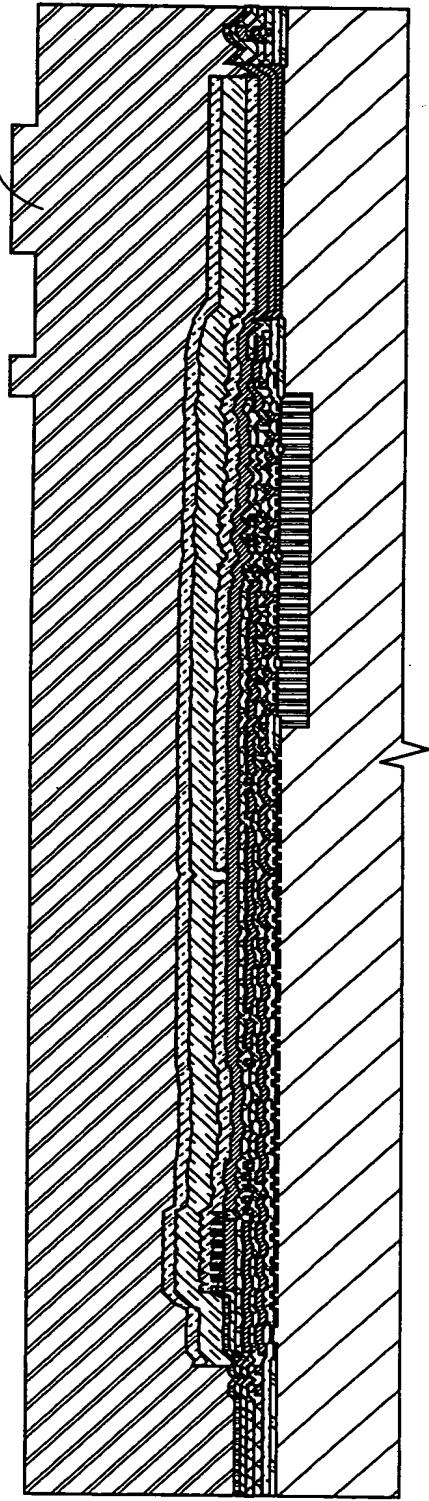
FIG. 58



Nozzle mask

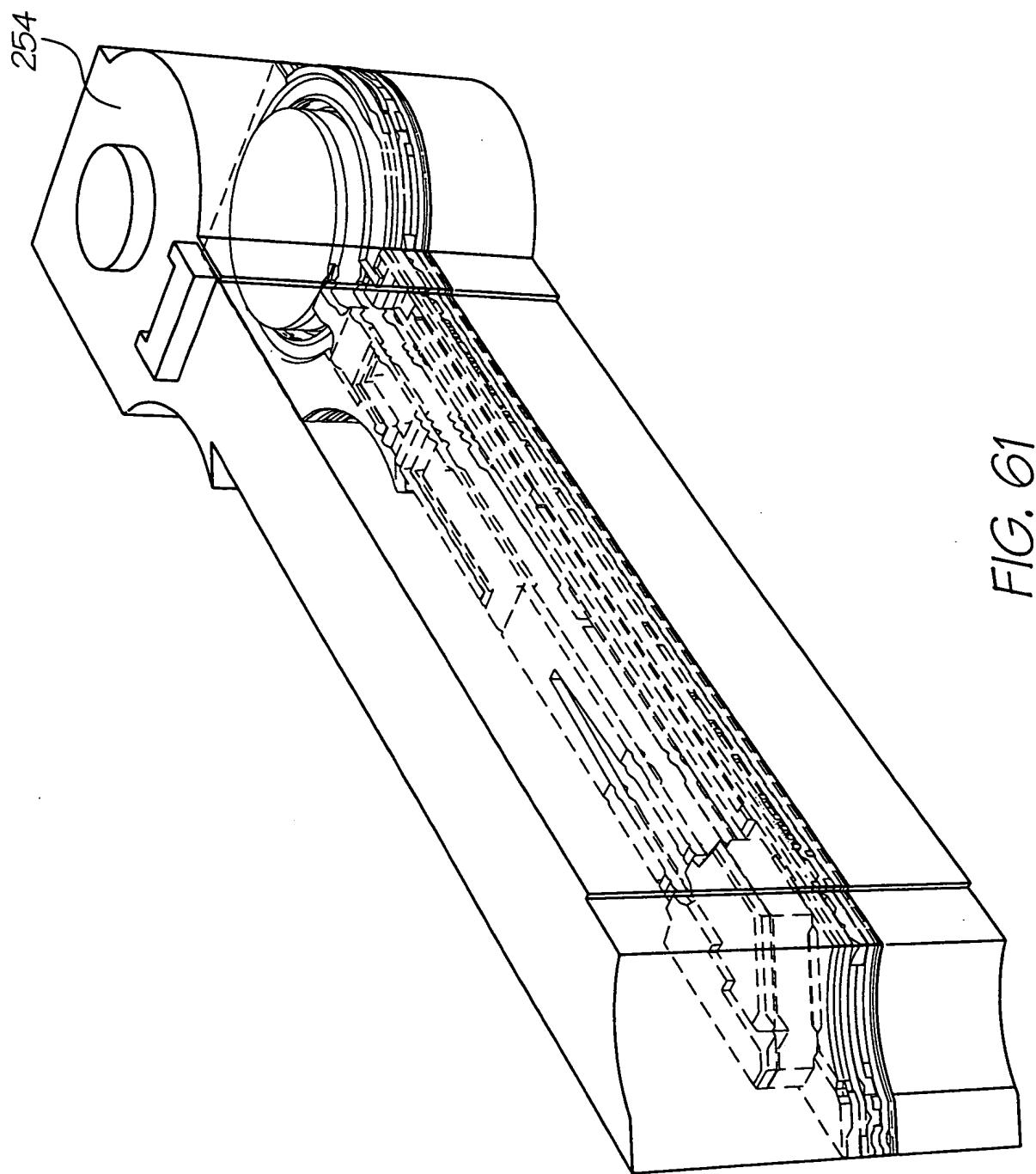
FIG. 59

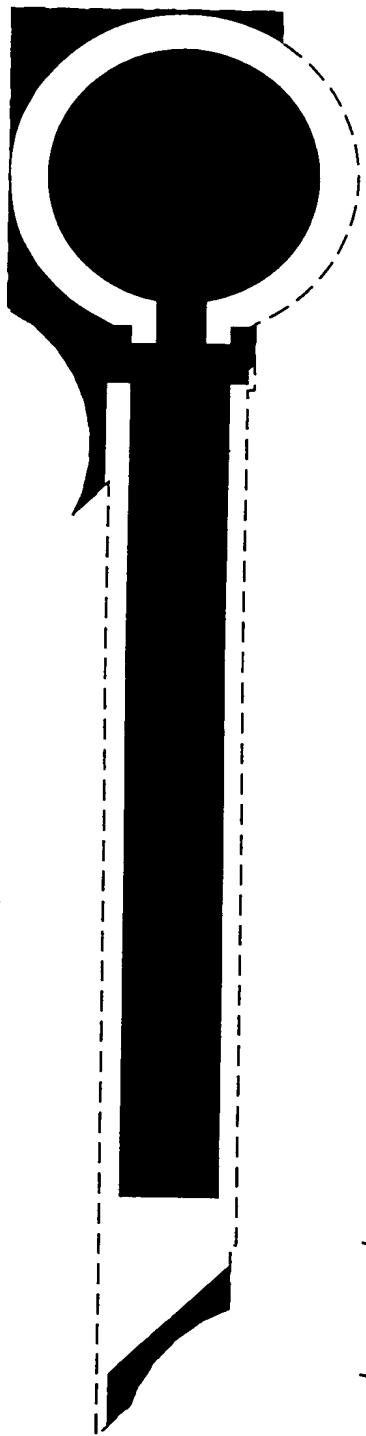
254



Deposit sacrificial layer, etch nozzles

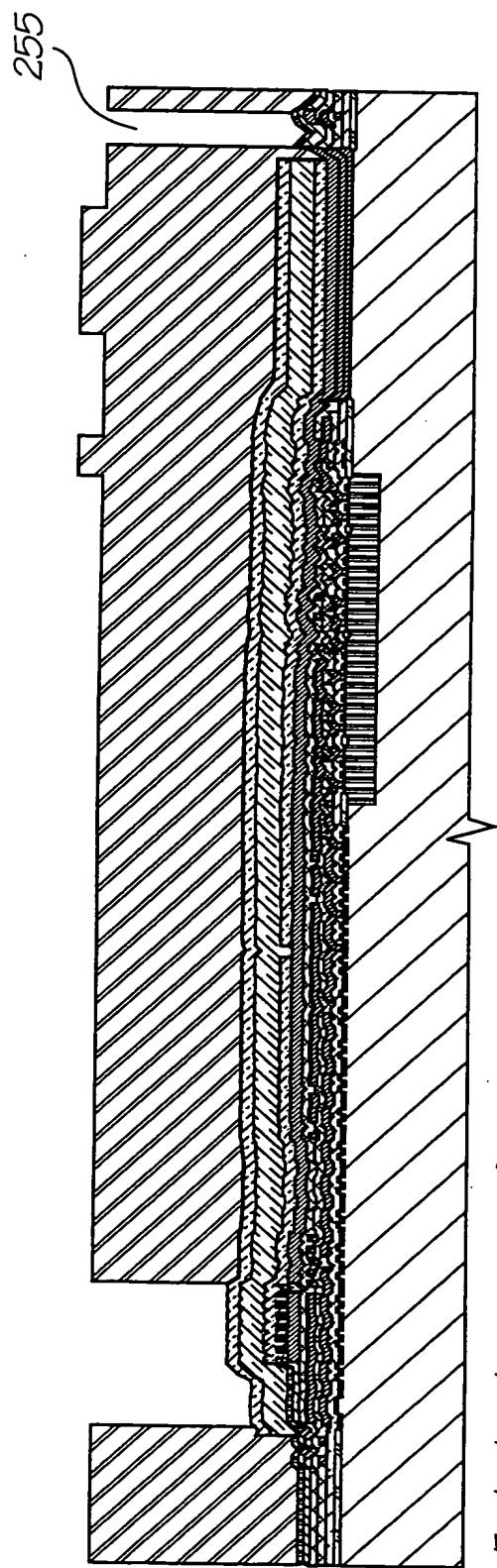
FIG. 60





Chamber mask

FIG. 62



Etch chambers in sacrificial layer

FIG. 63

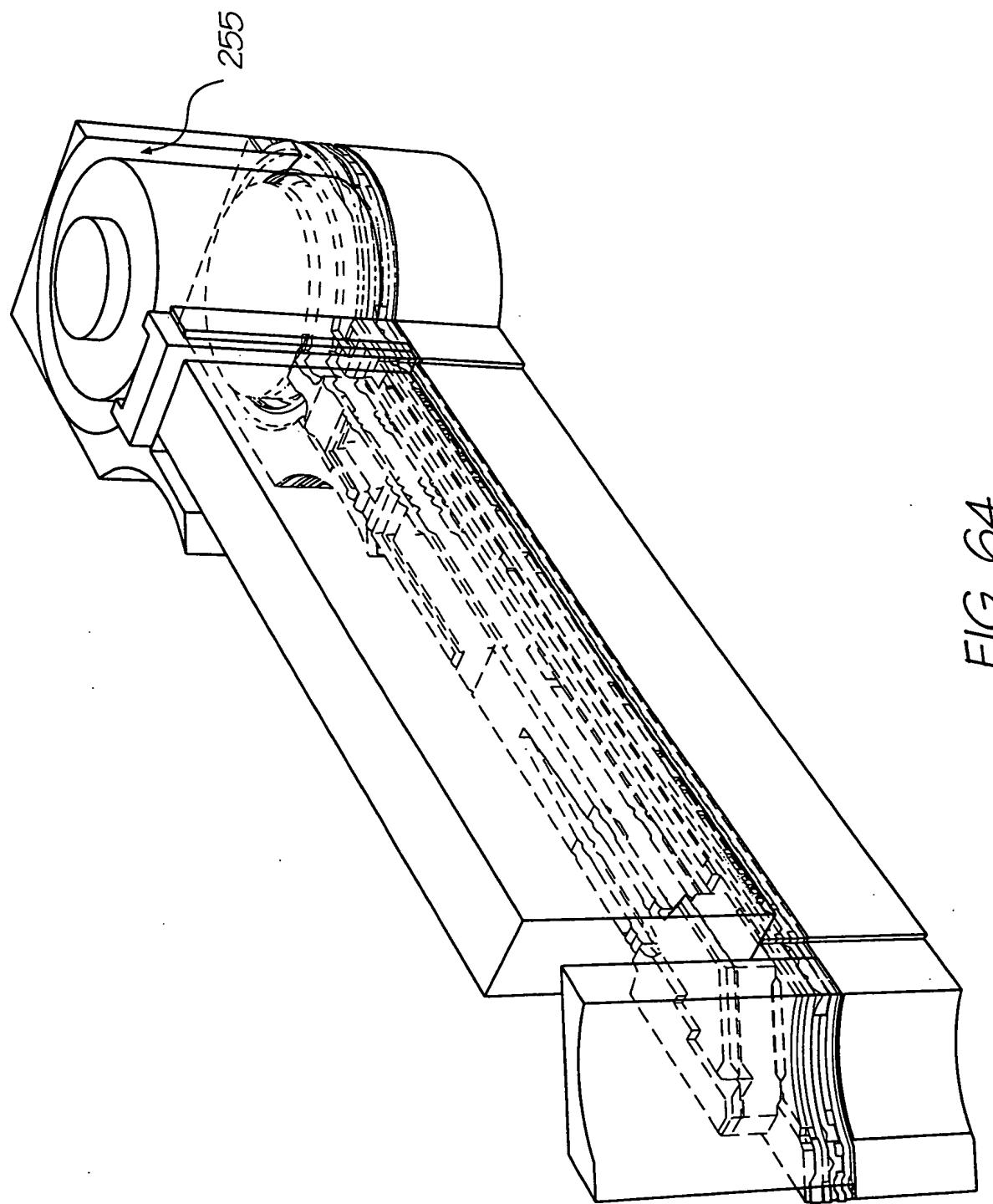
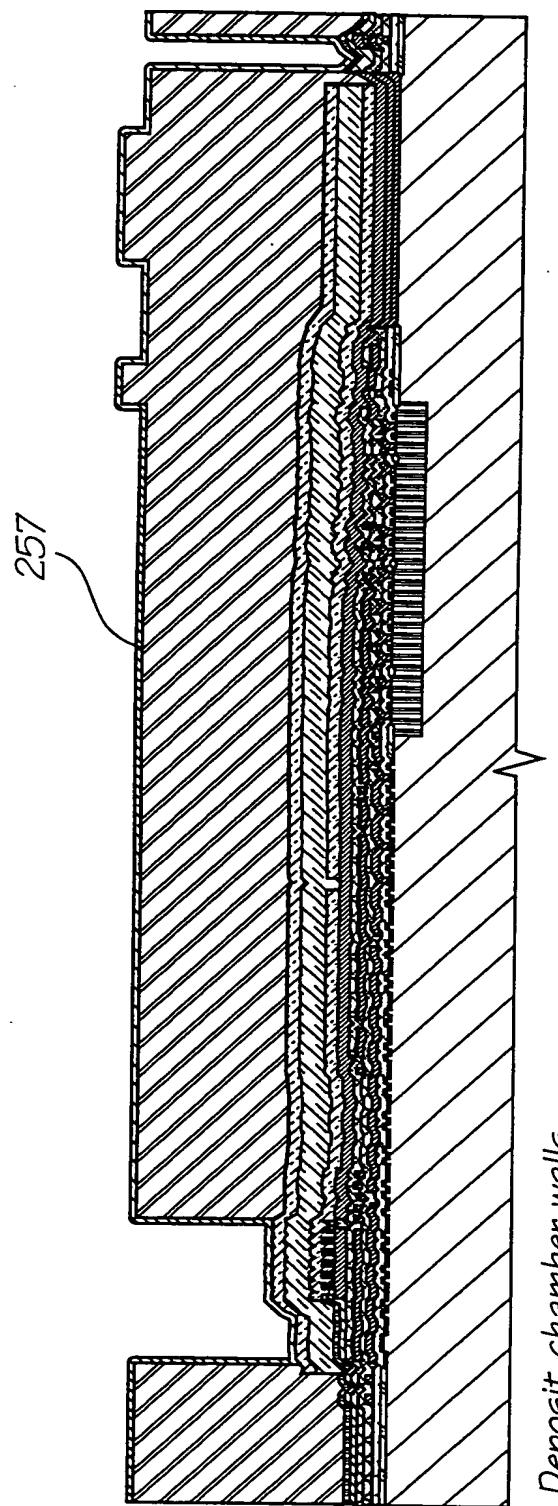
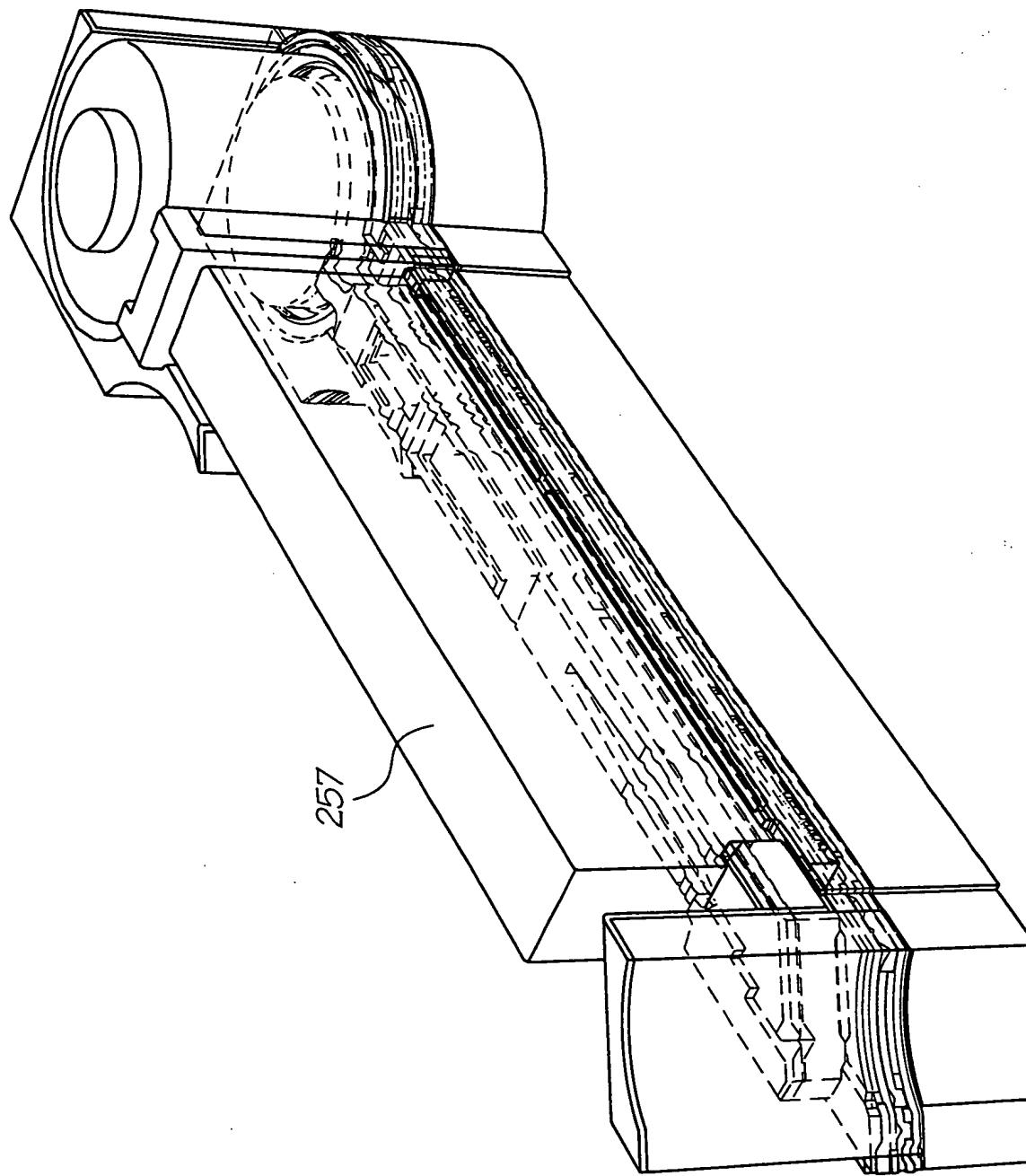


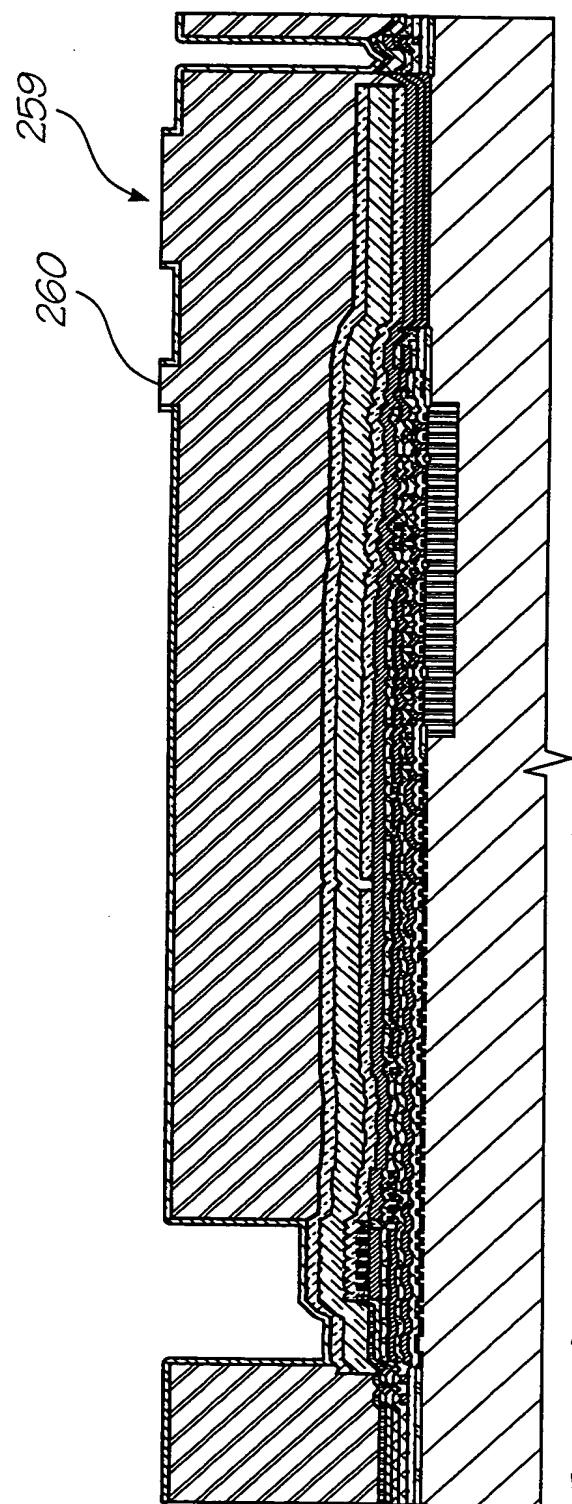
FIG. 64



*Deposit chamber walls*

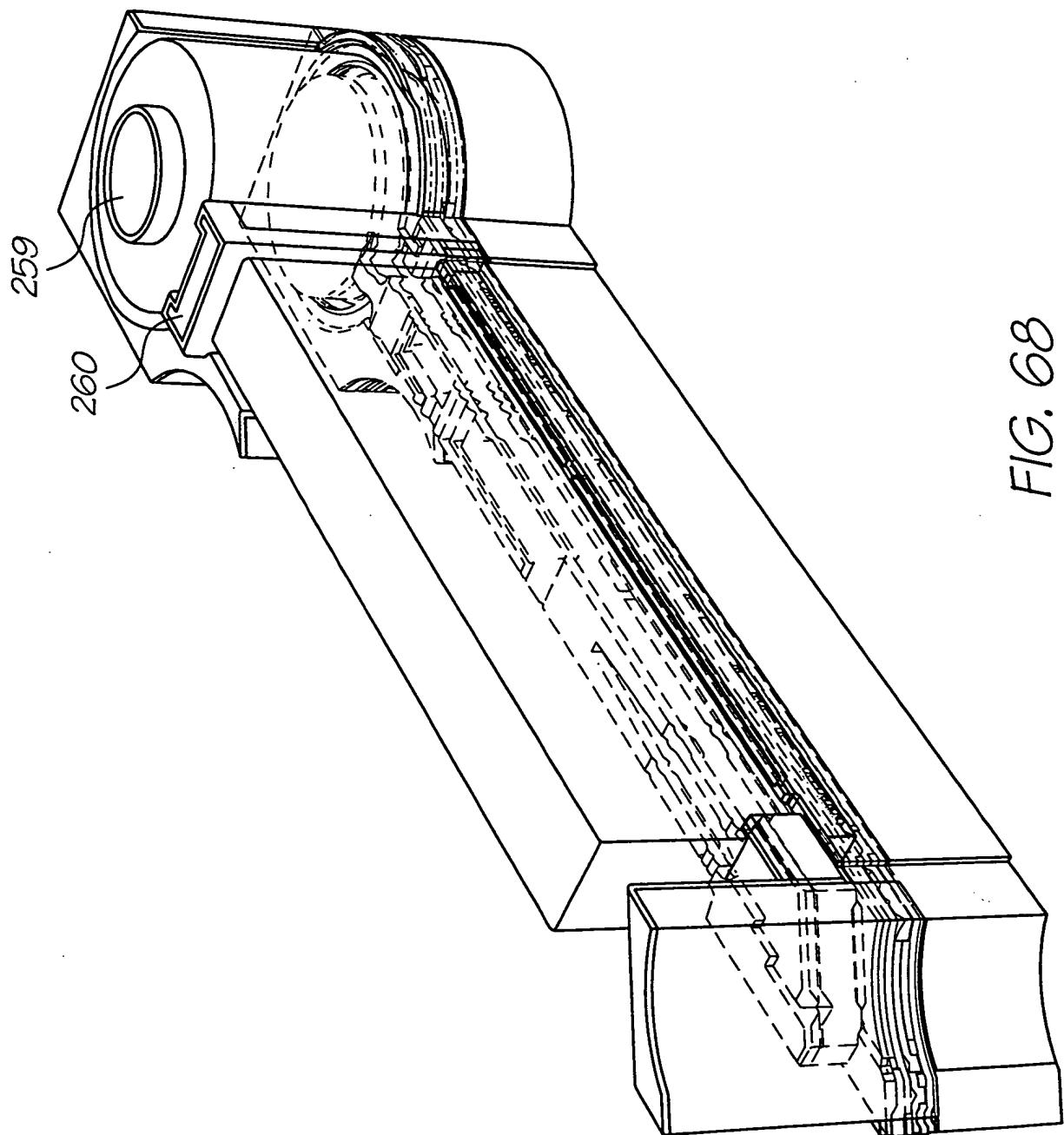
FIG. 65

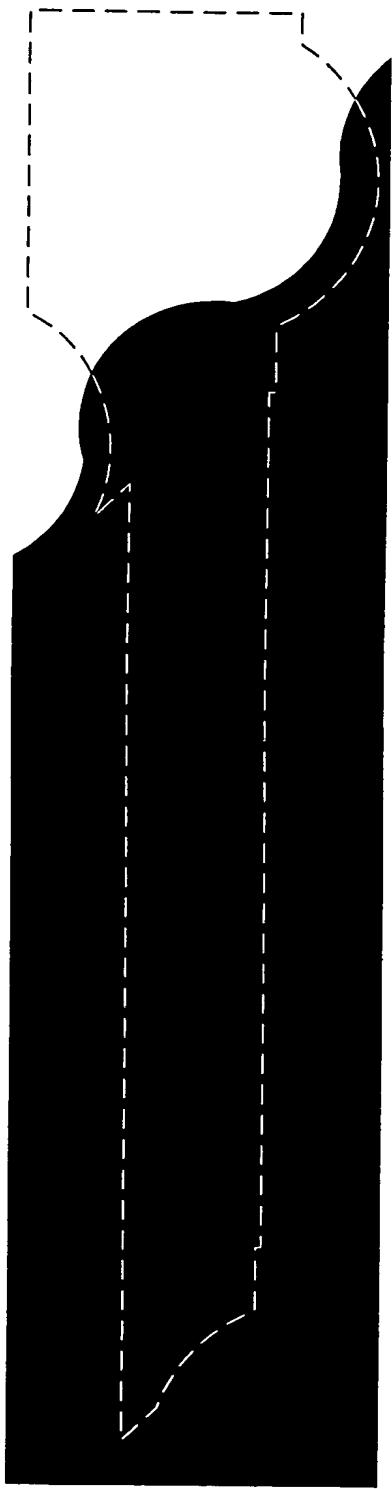




*Form self-aligned nozzles using CMP*

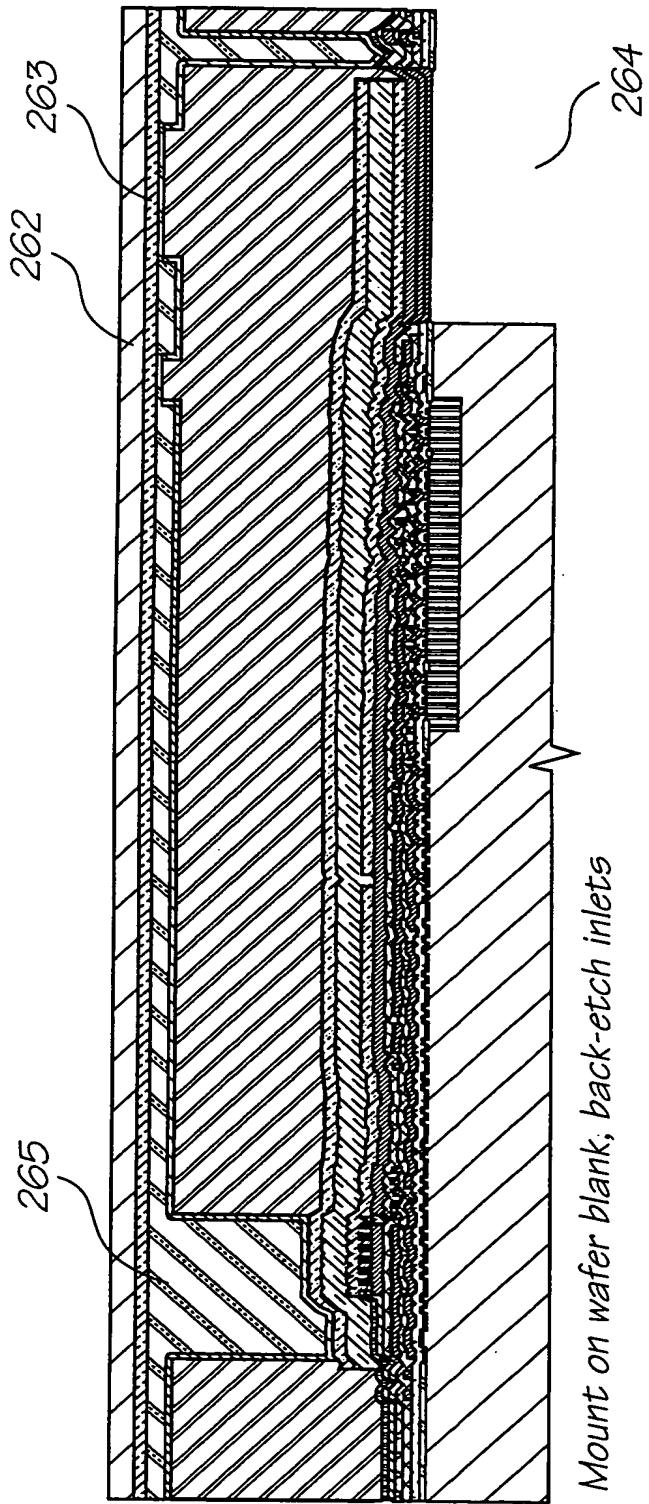
FIG. 67





Back-etch inlet mask

FIG. 70



Mount on wafer blank, back-etch inlets

FIG. 69

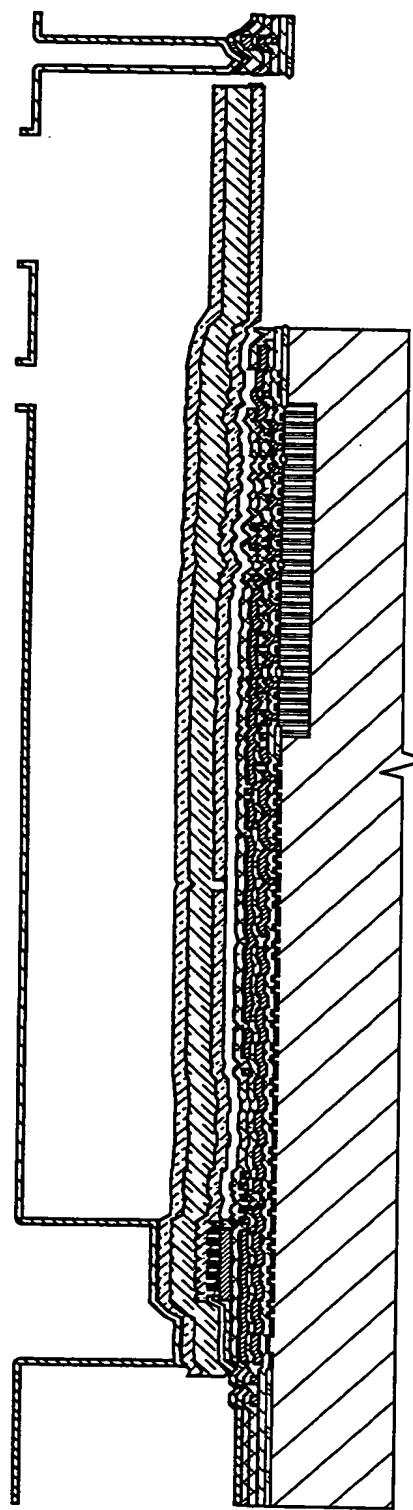


FIG. 71

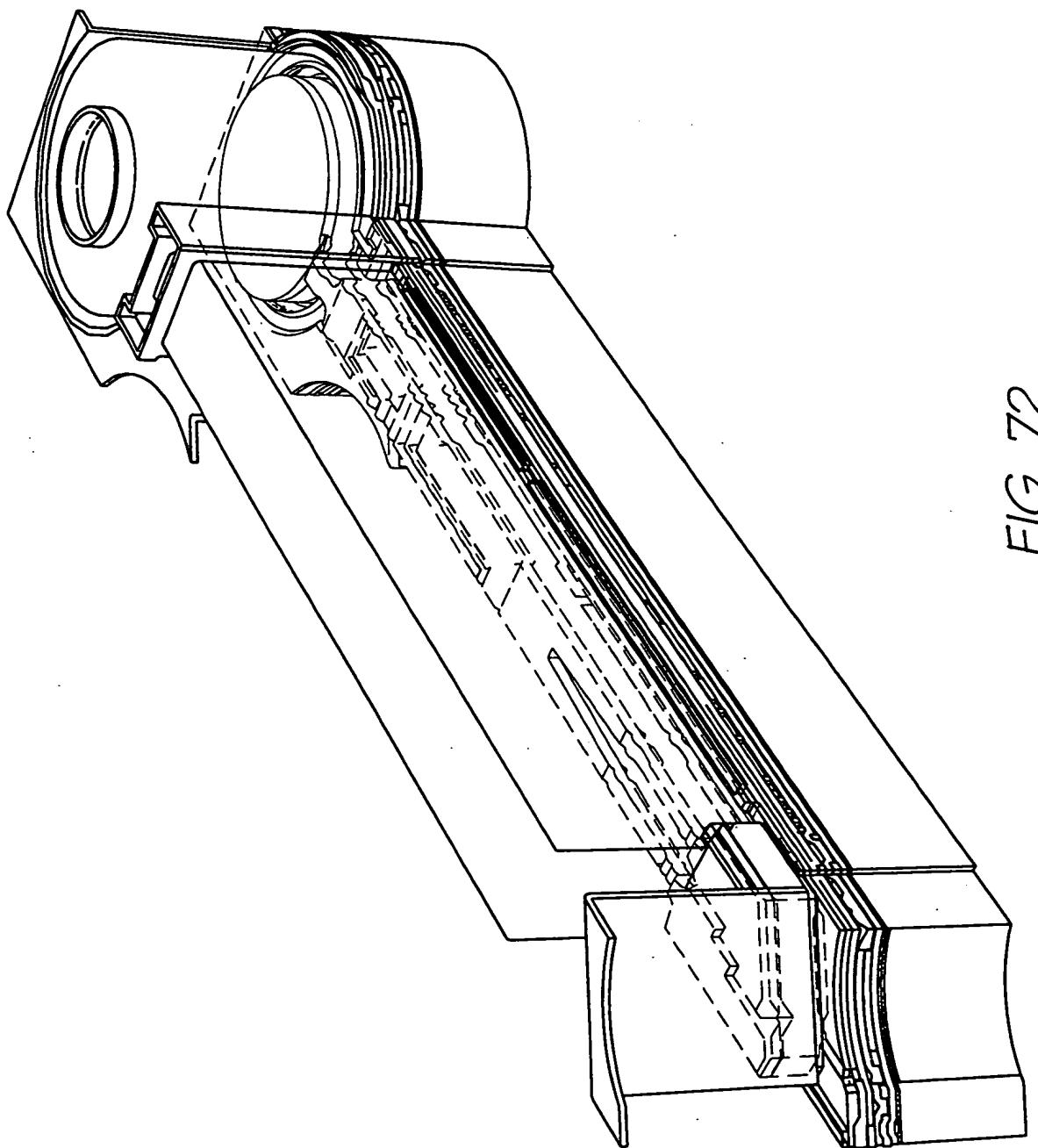


FIG. 72

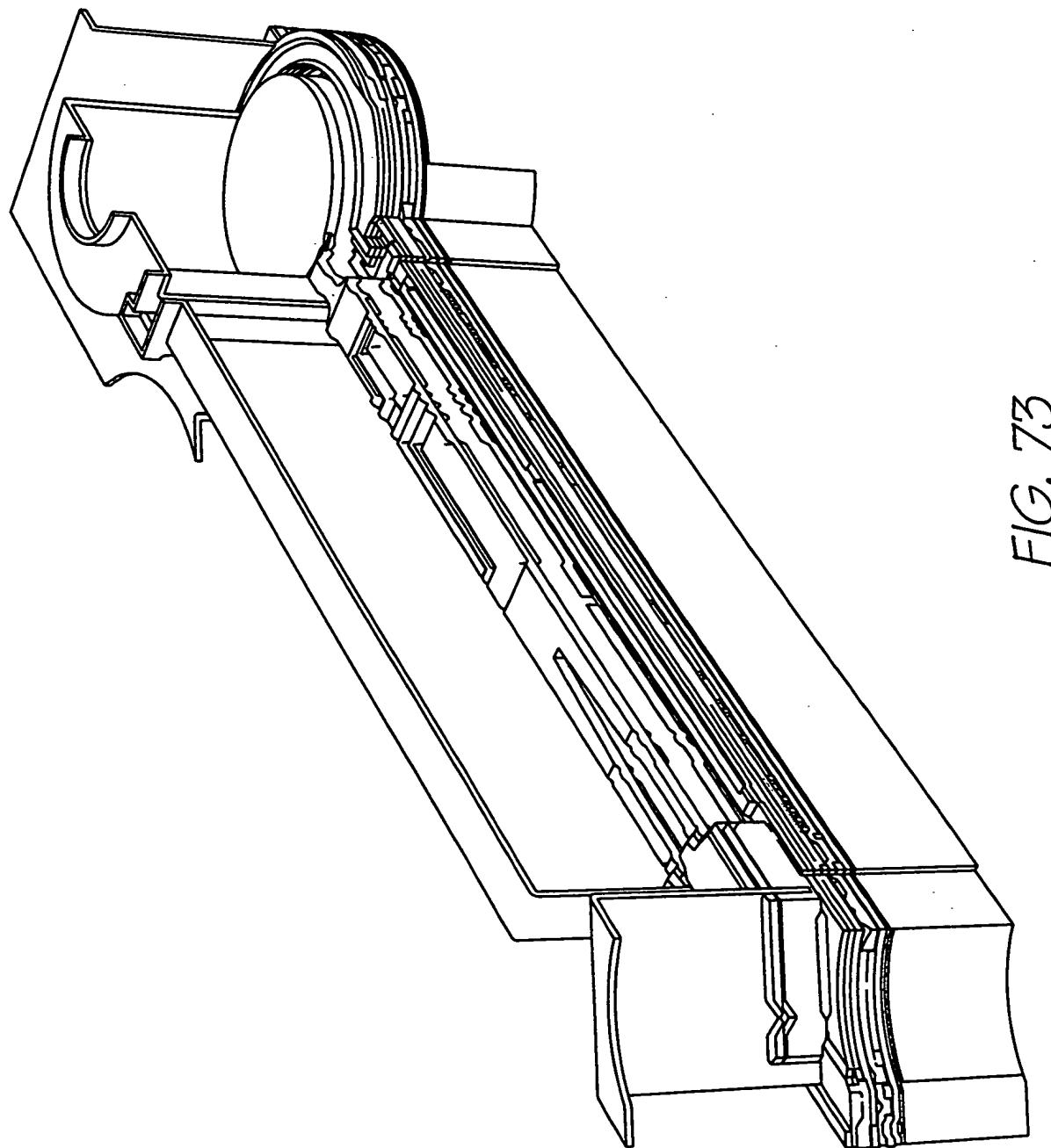
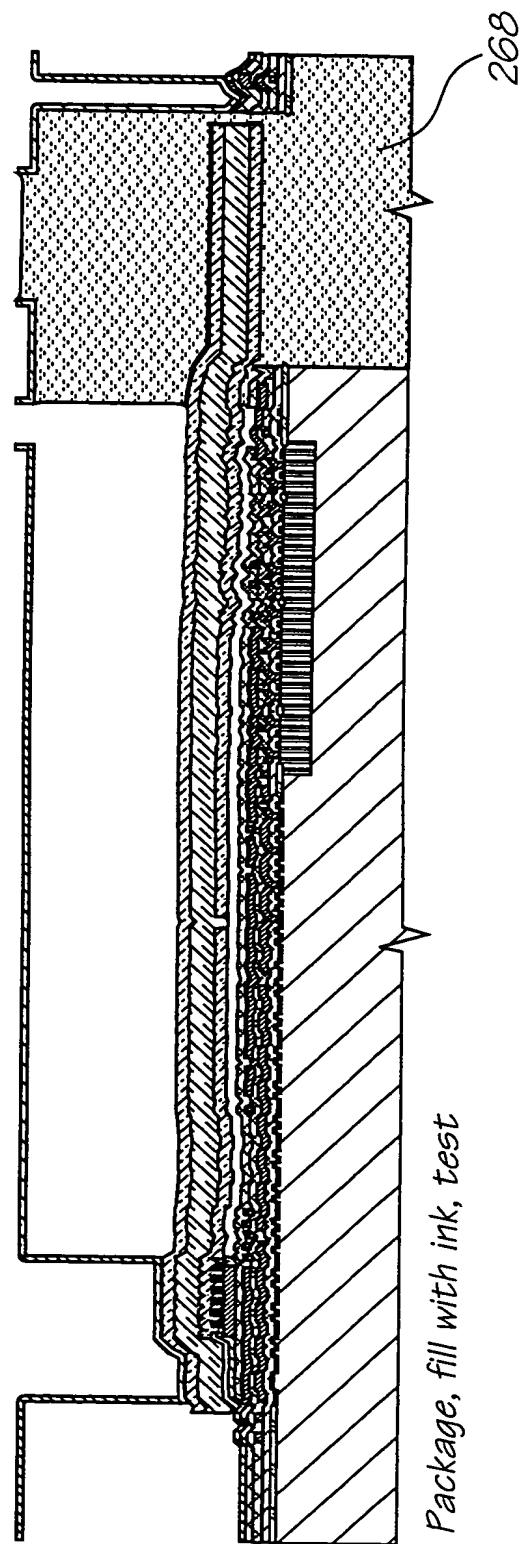


FIG. 73



Package, fill with ink, test

FIG. 74

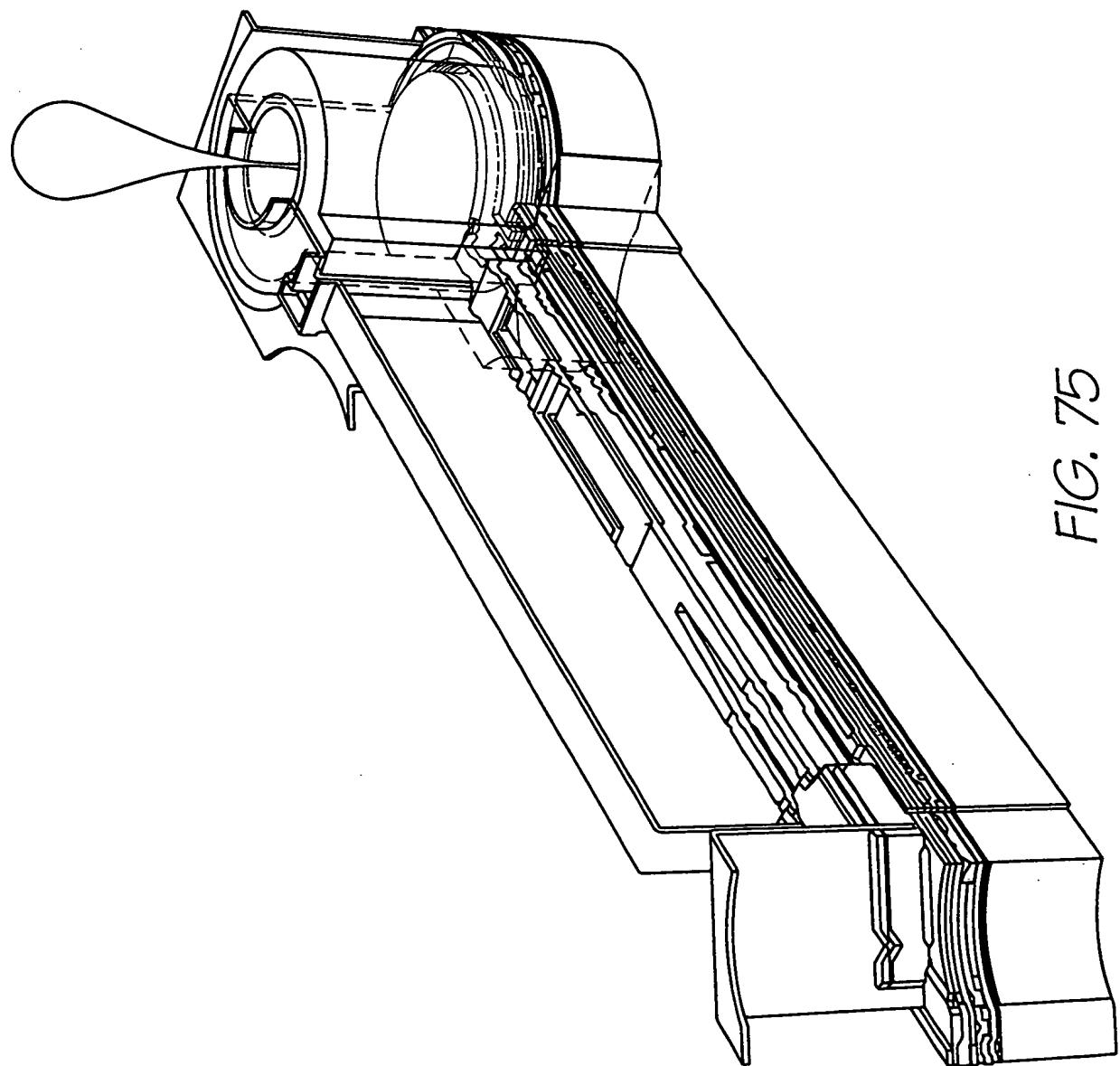


FIG. 75

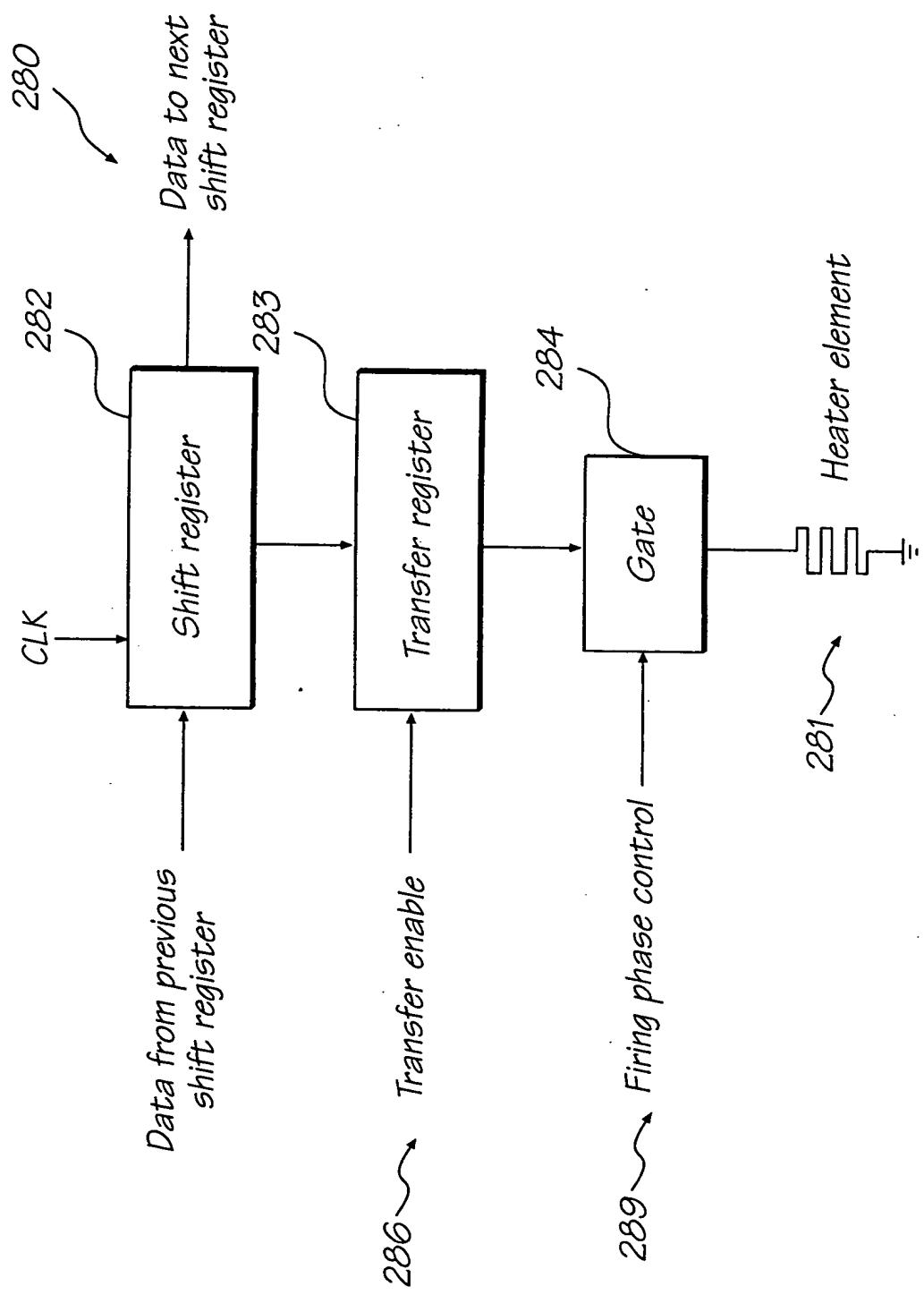


FIG. 76

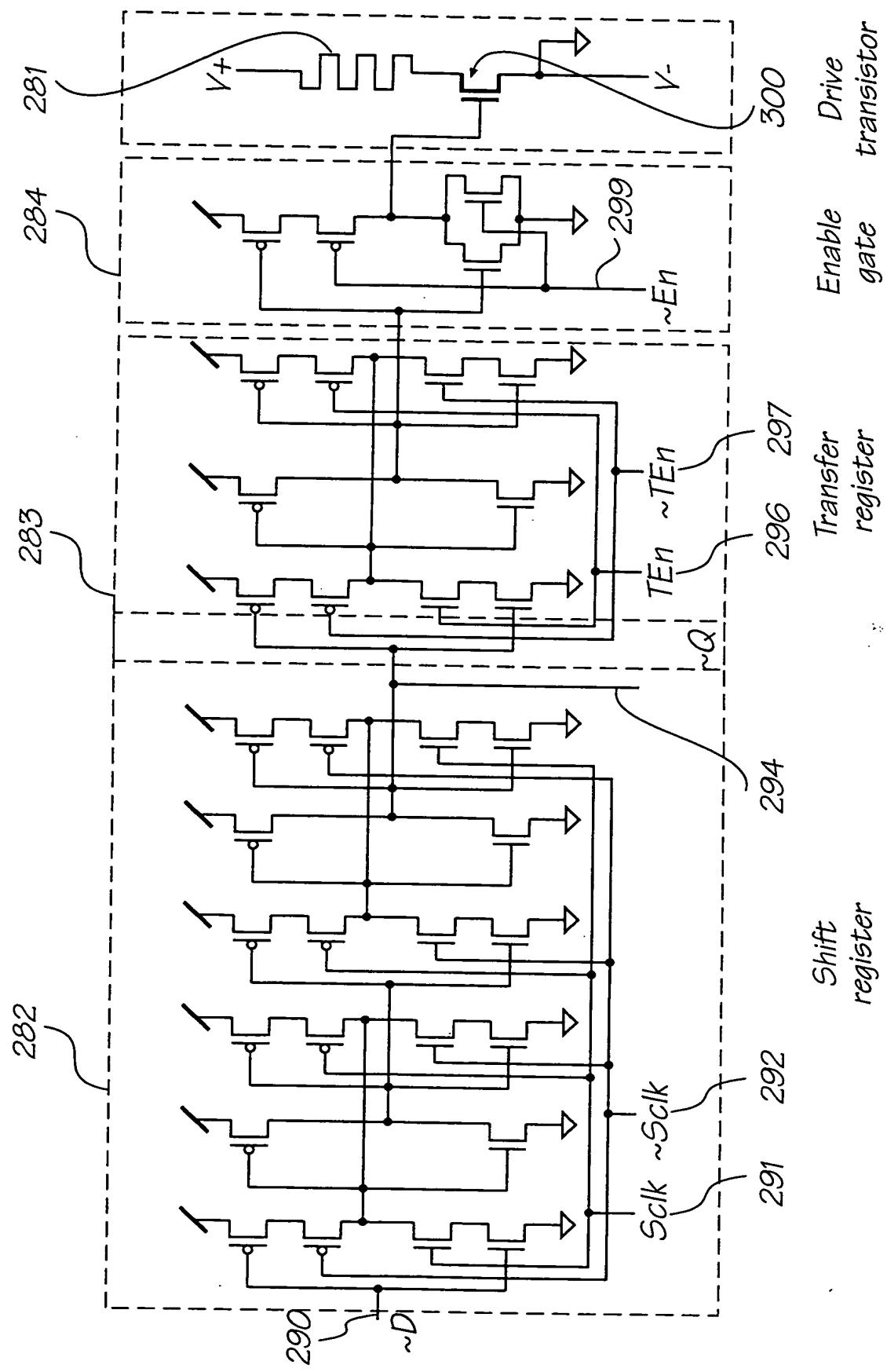


FIG. 77

Key

FIG. 78

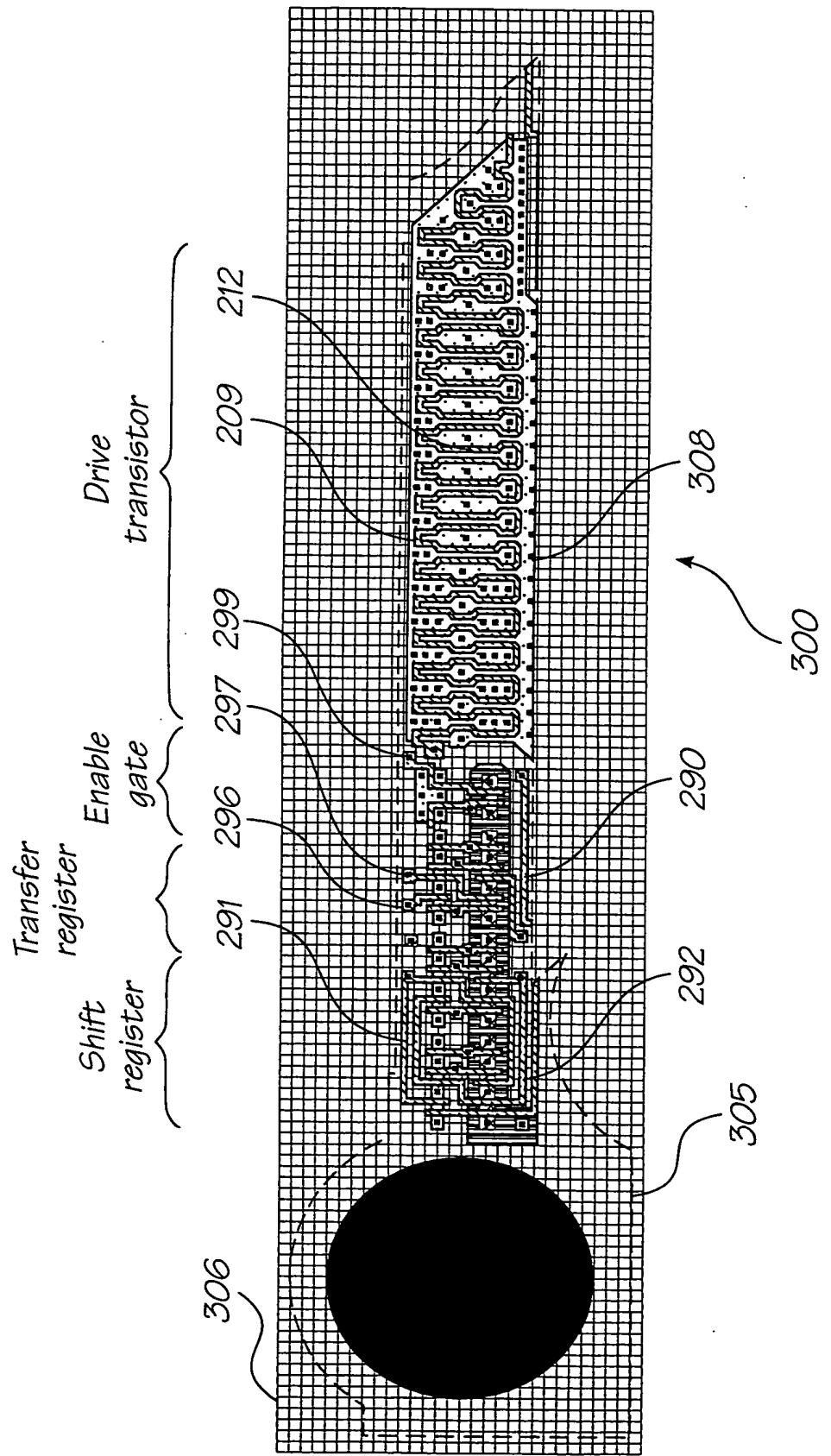


FIG. 79

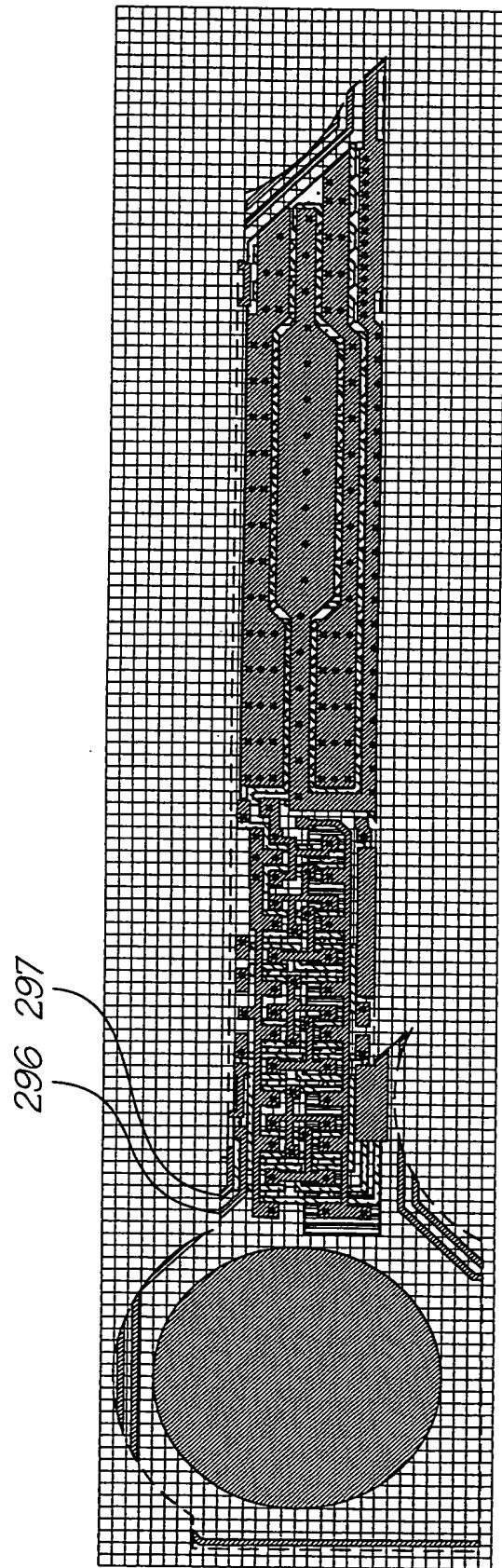


FIG. 80

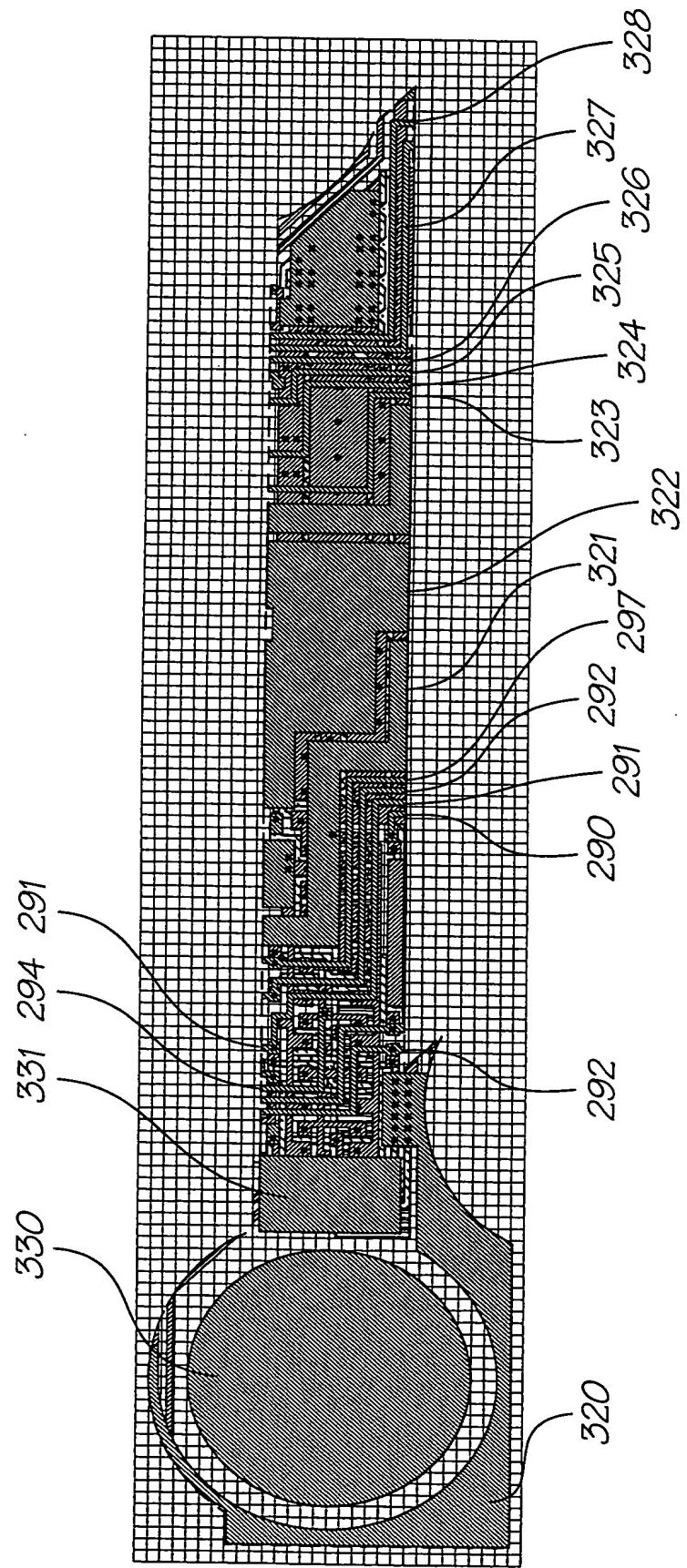


FIG. 81

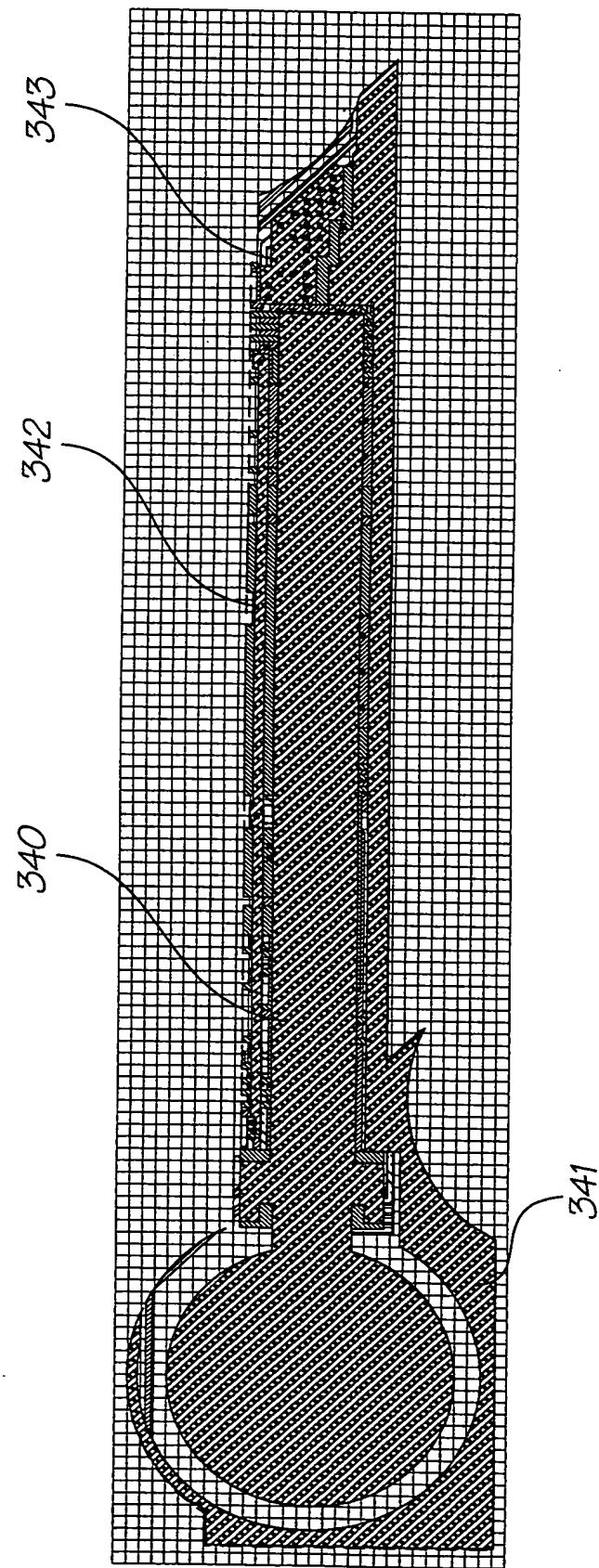


FIG. 82

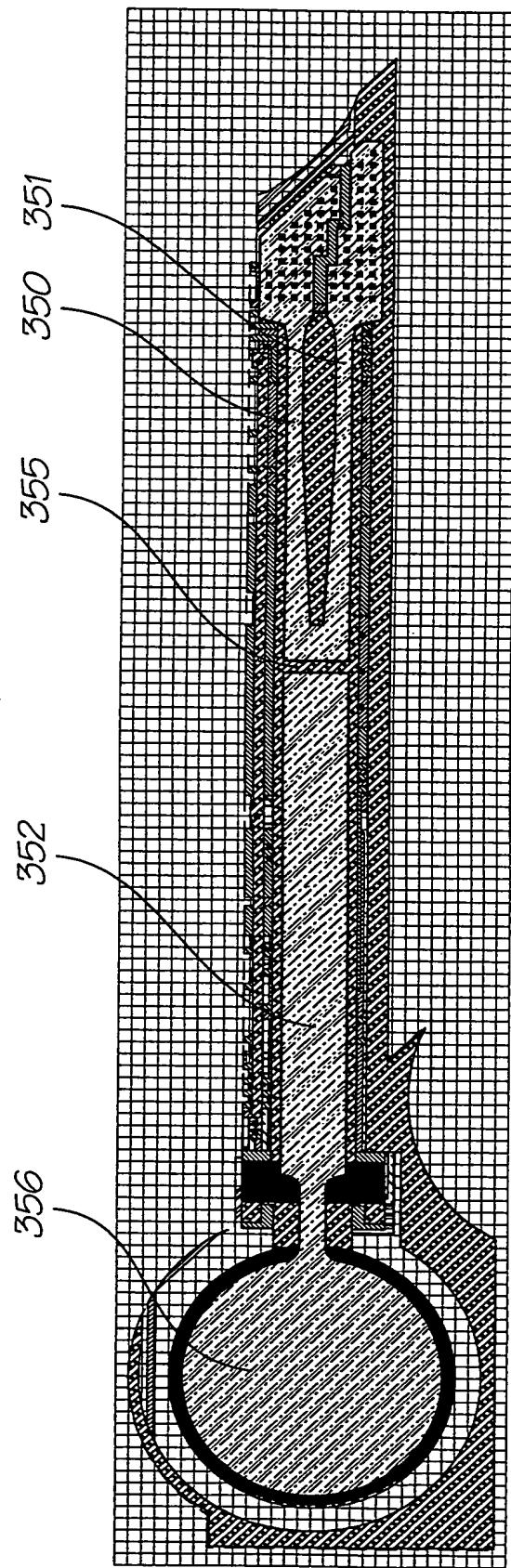


FIG. 83

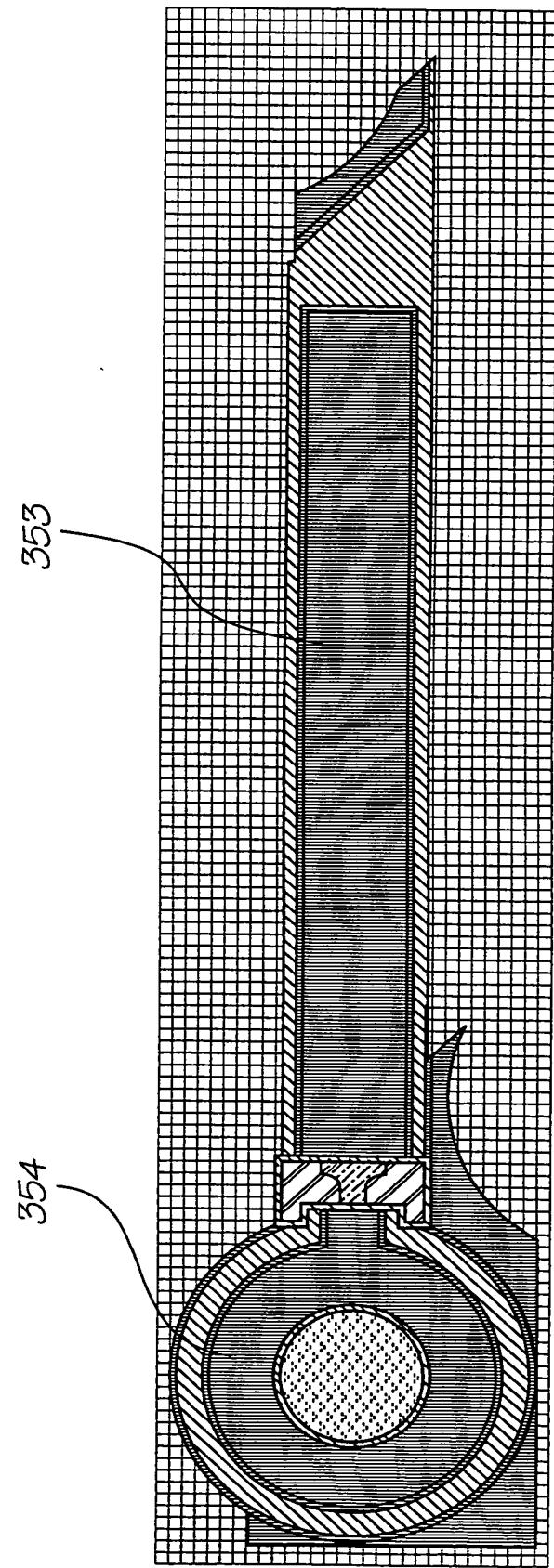


FIG. 84

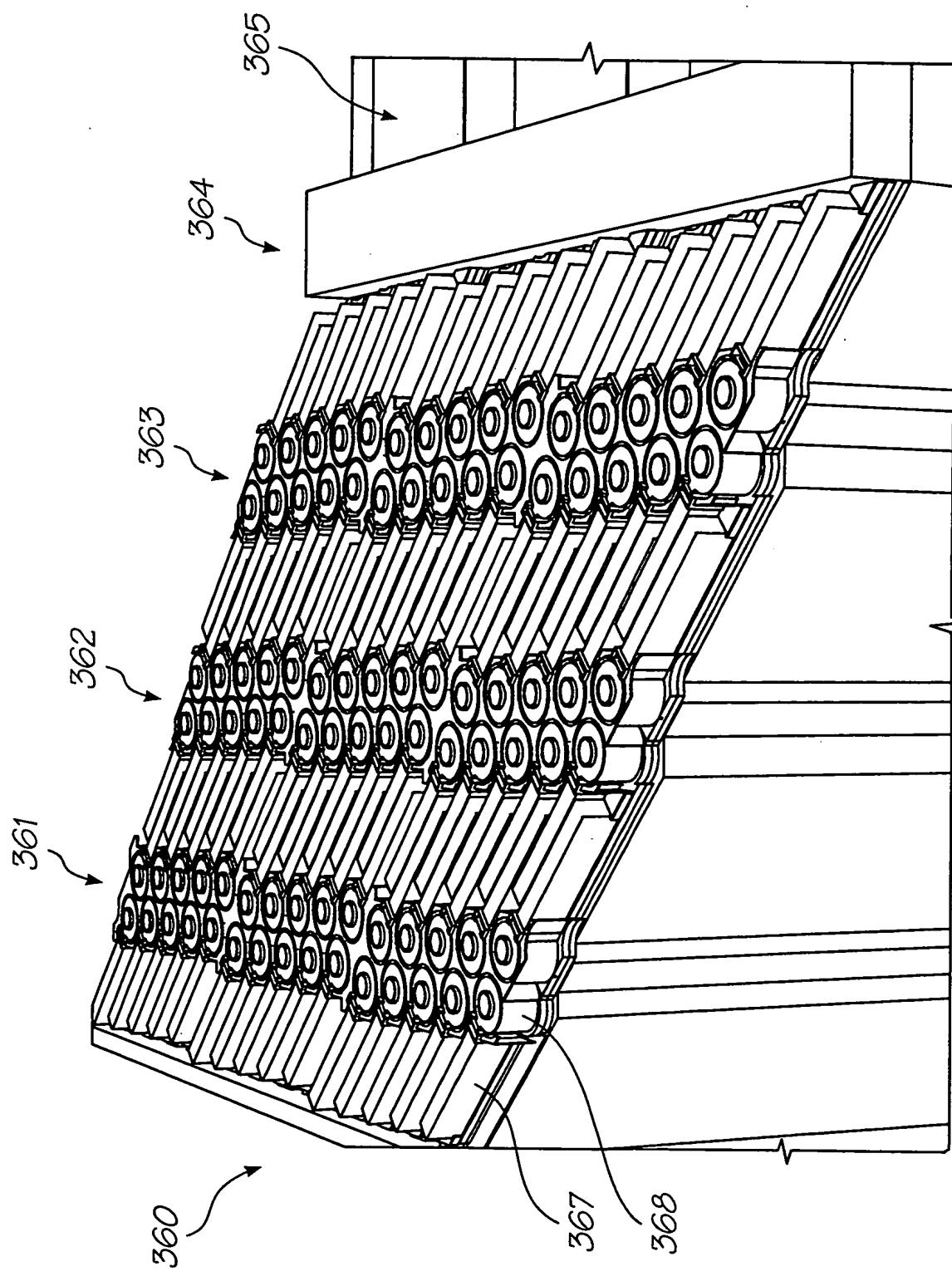


FIG. 85

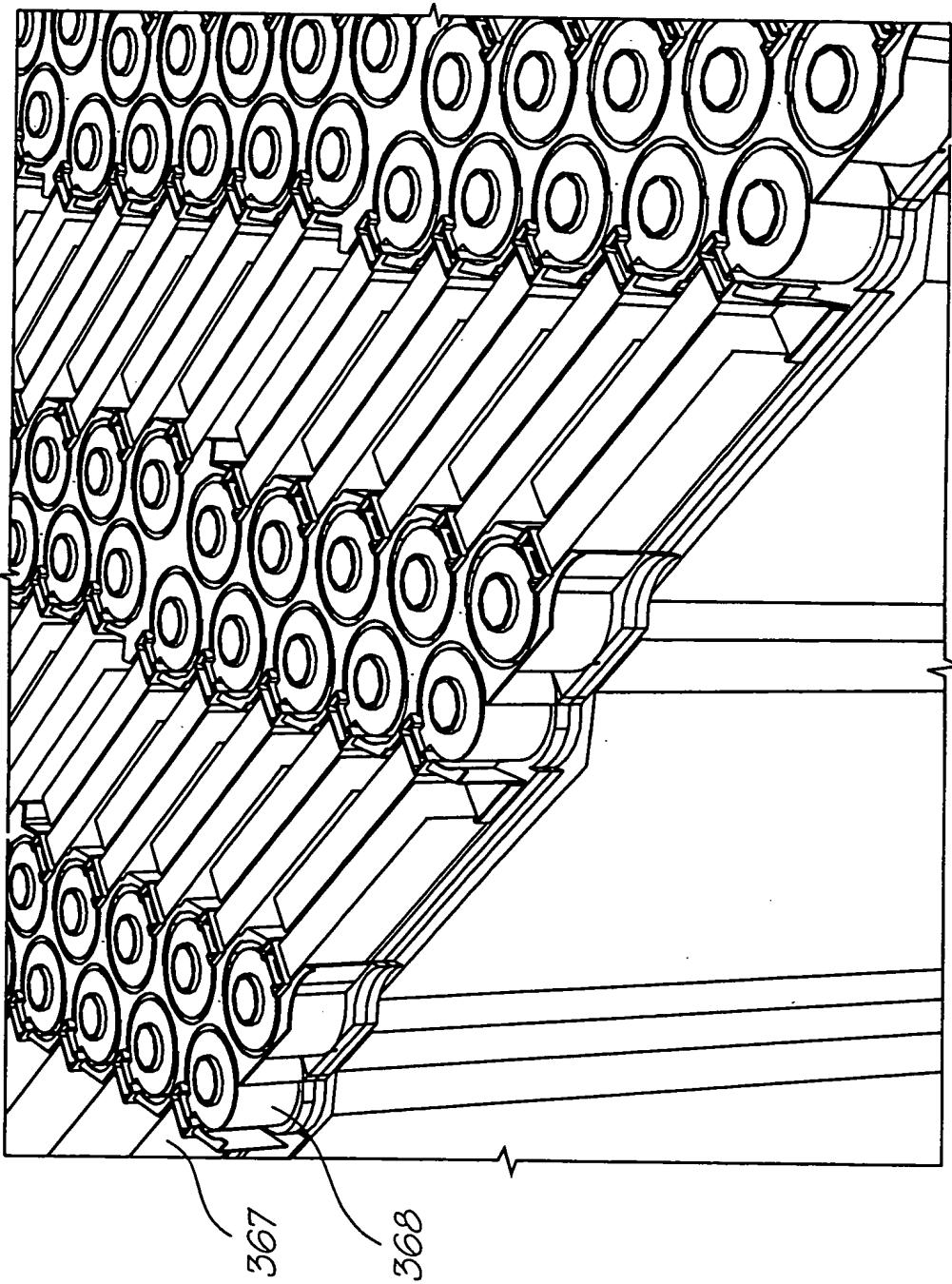


FIG. 86

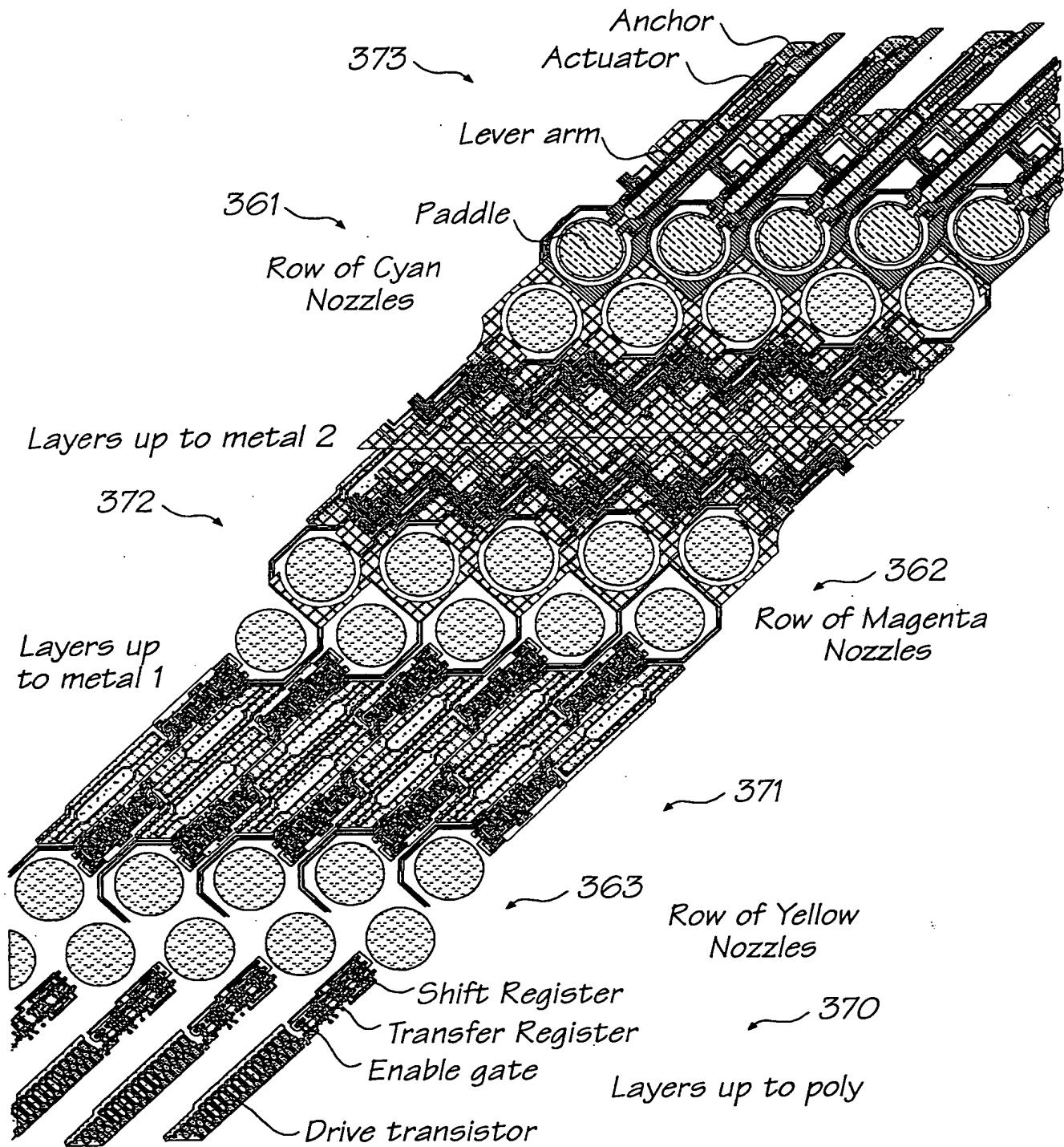


FIG. 87

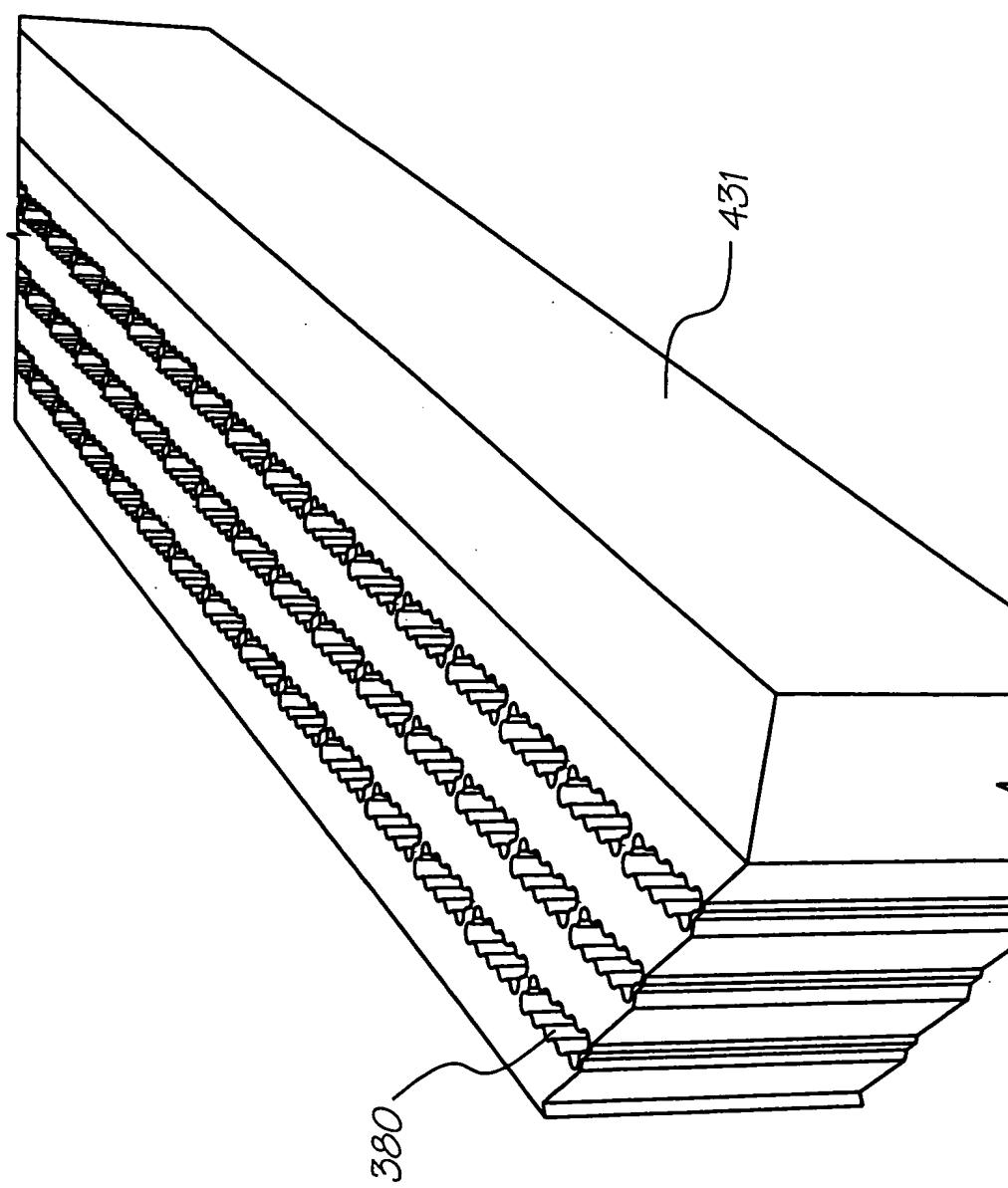


FIG. 88

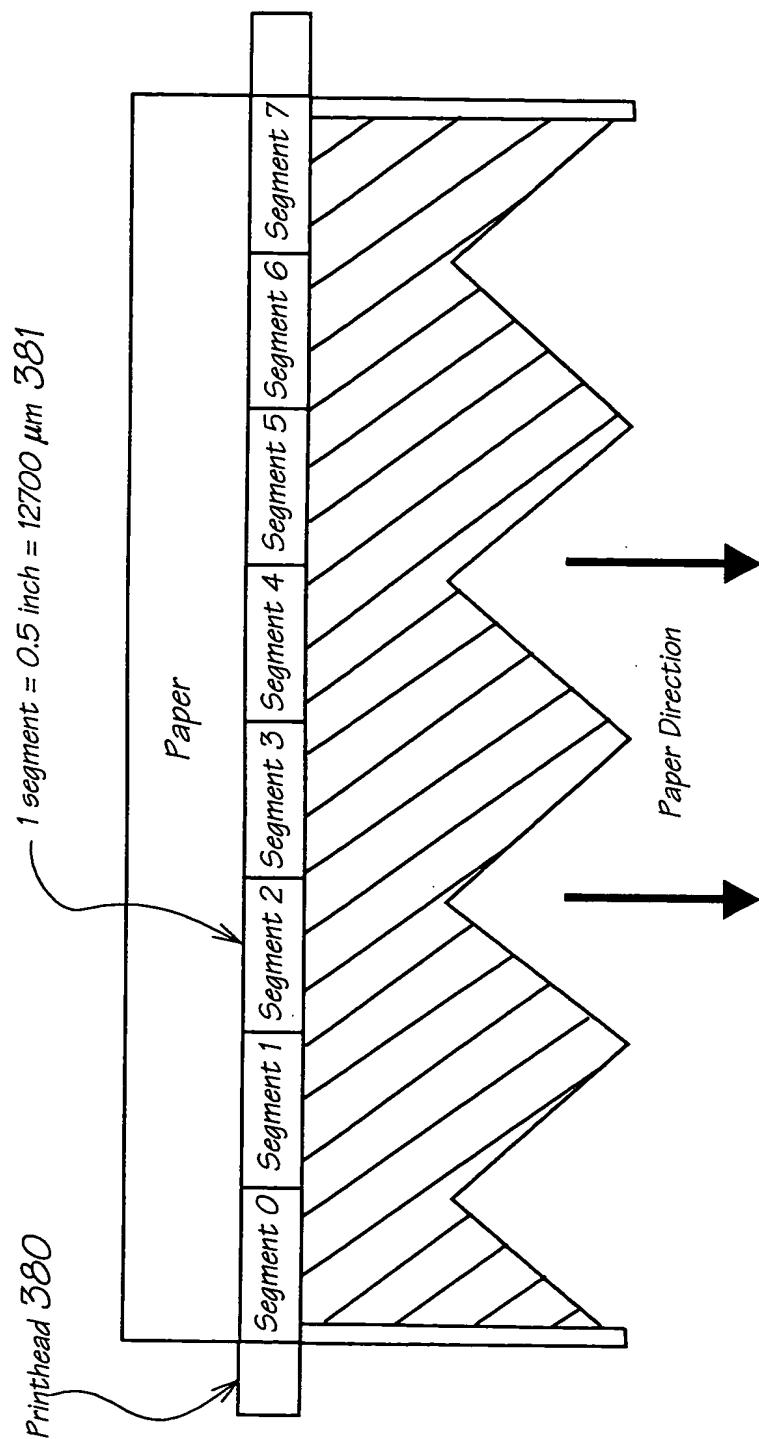
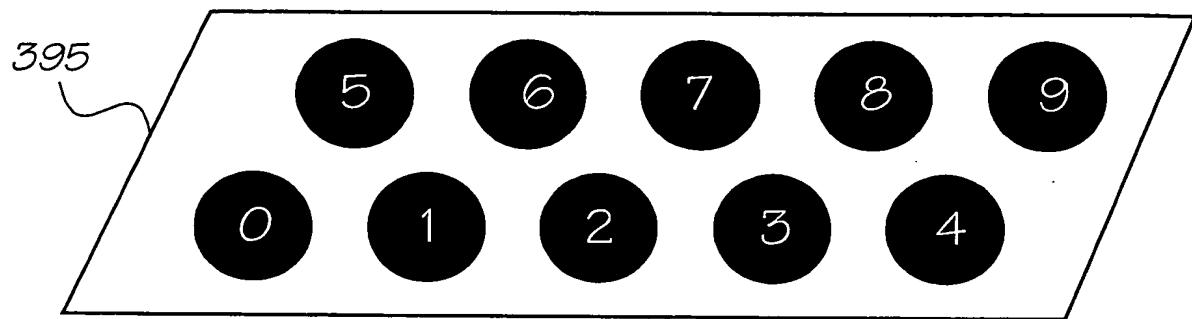


FIG. 89



*A single pod, numbered by firing order*

FIG. 90

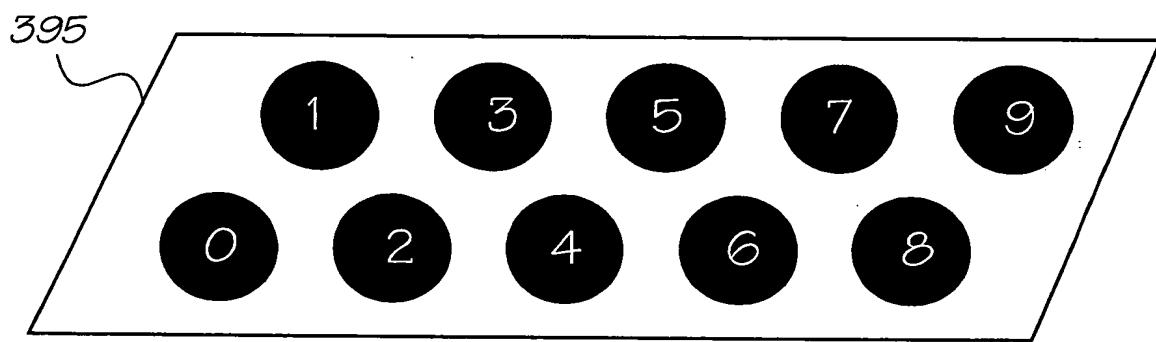


FIG. 91

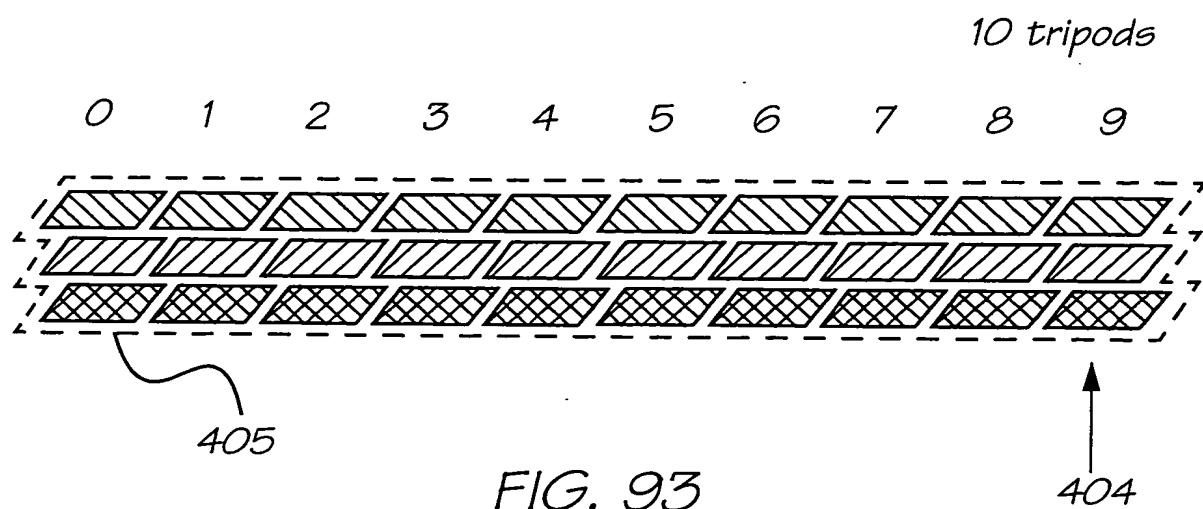


FIG. 93

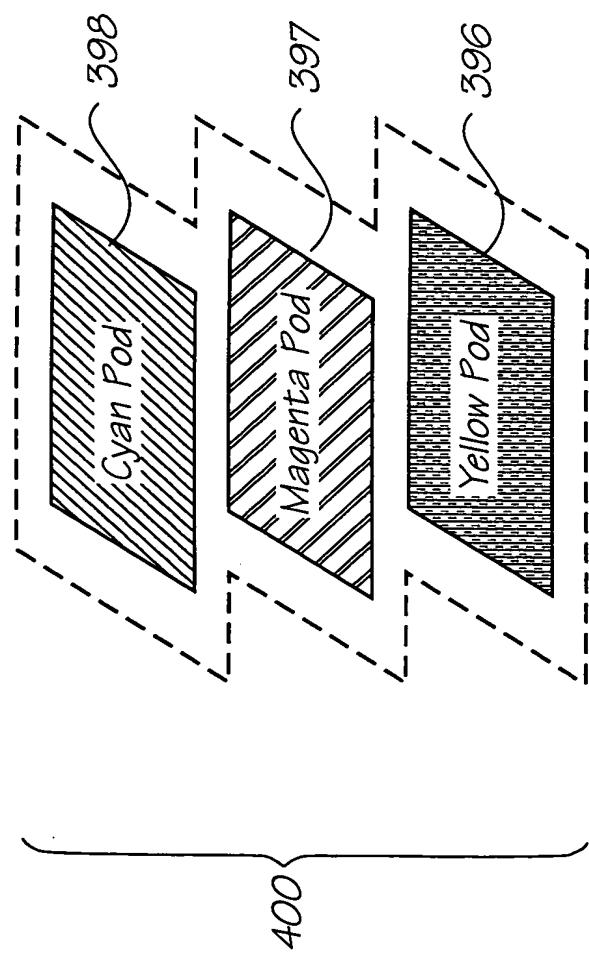


FIG. 92

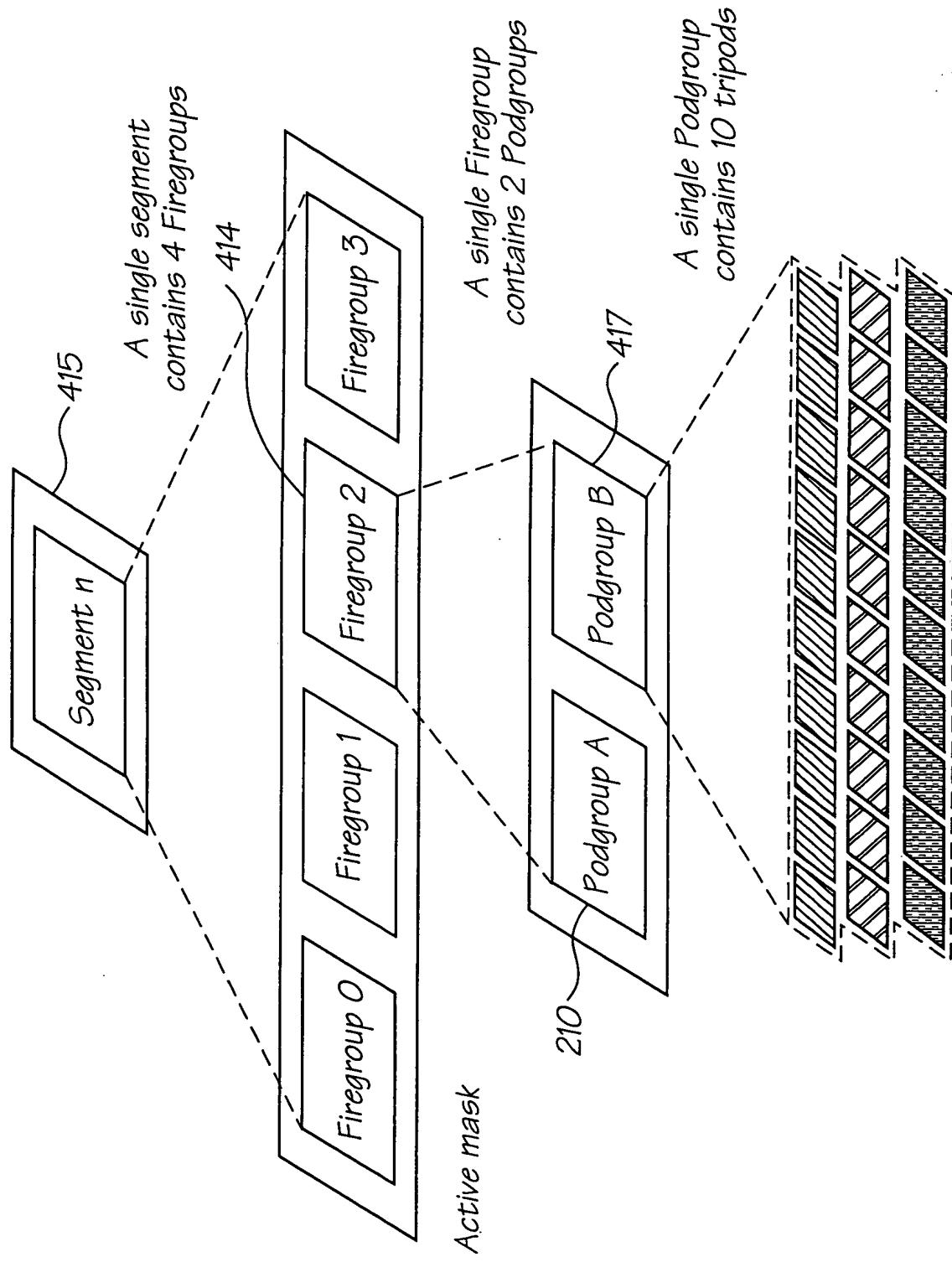


FIG. 94

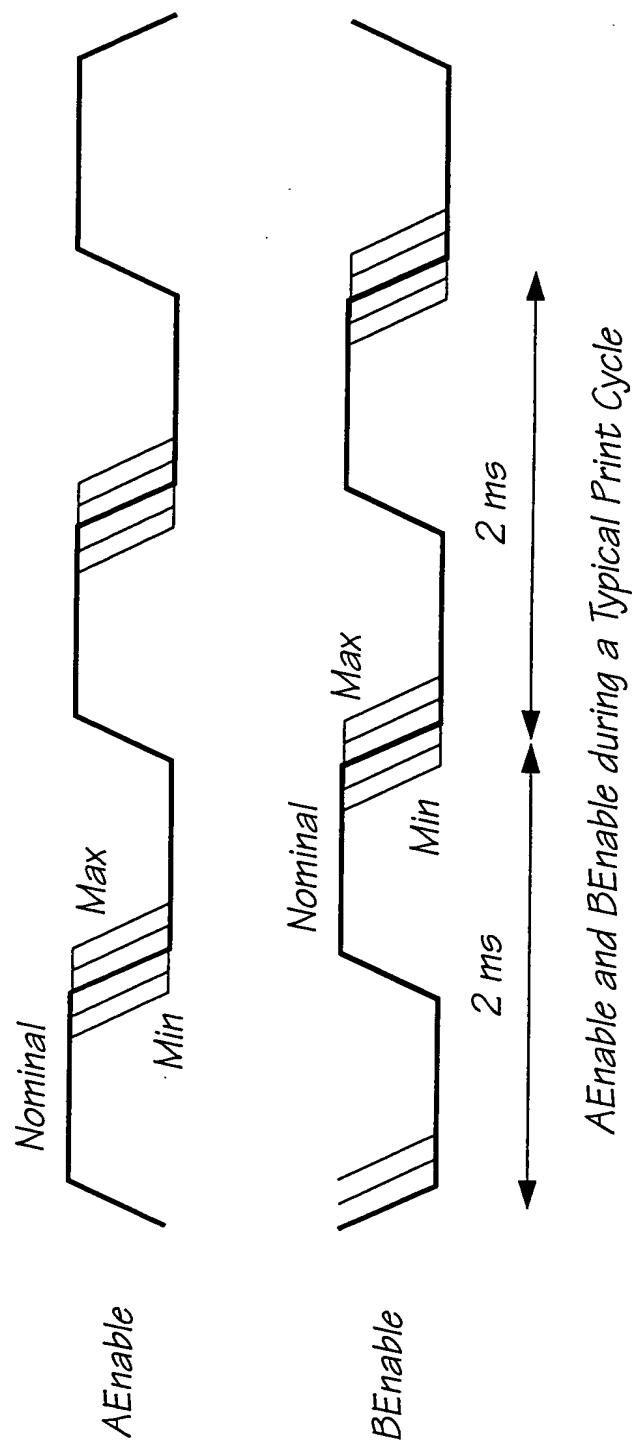


FIG. 95

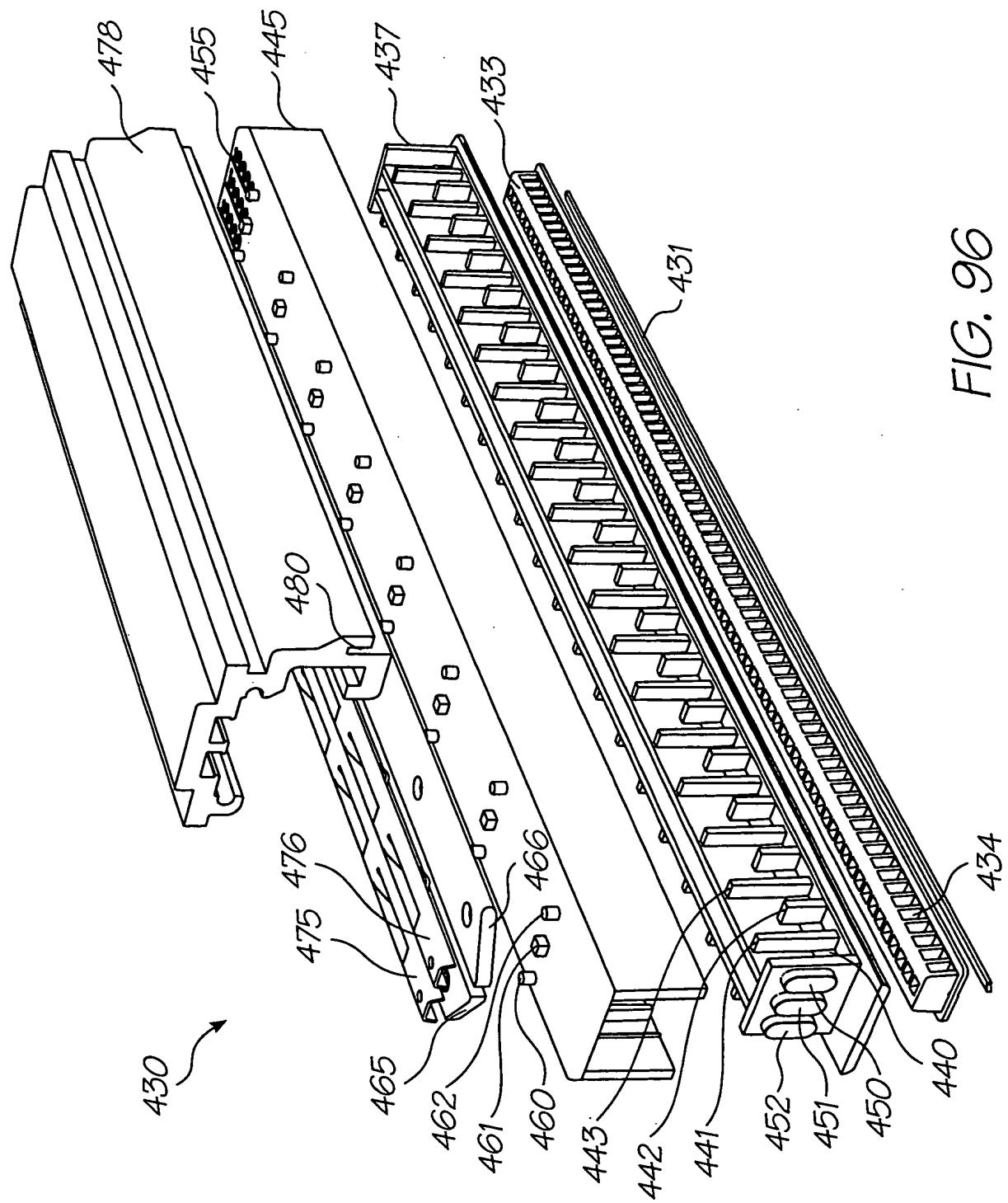


FIG. 96

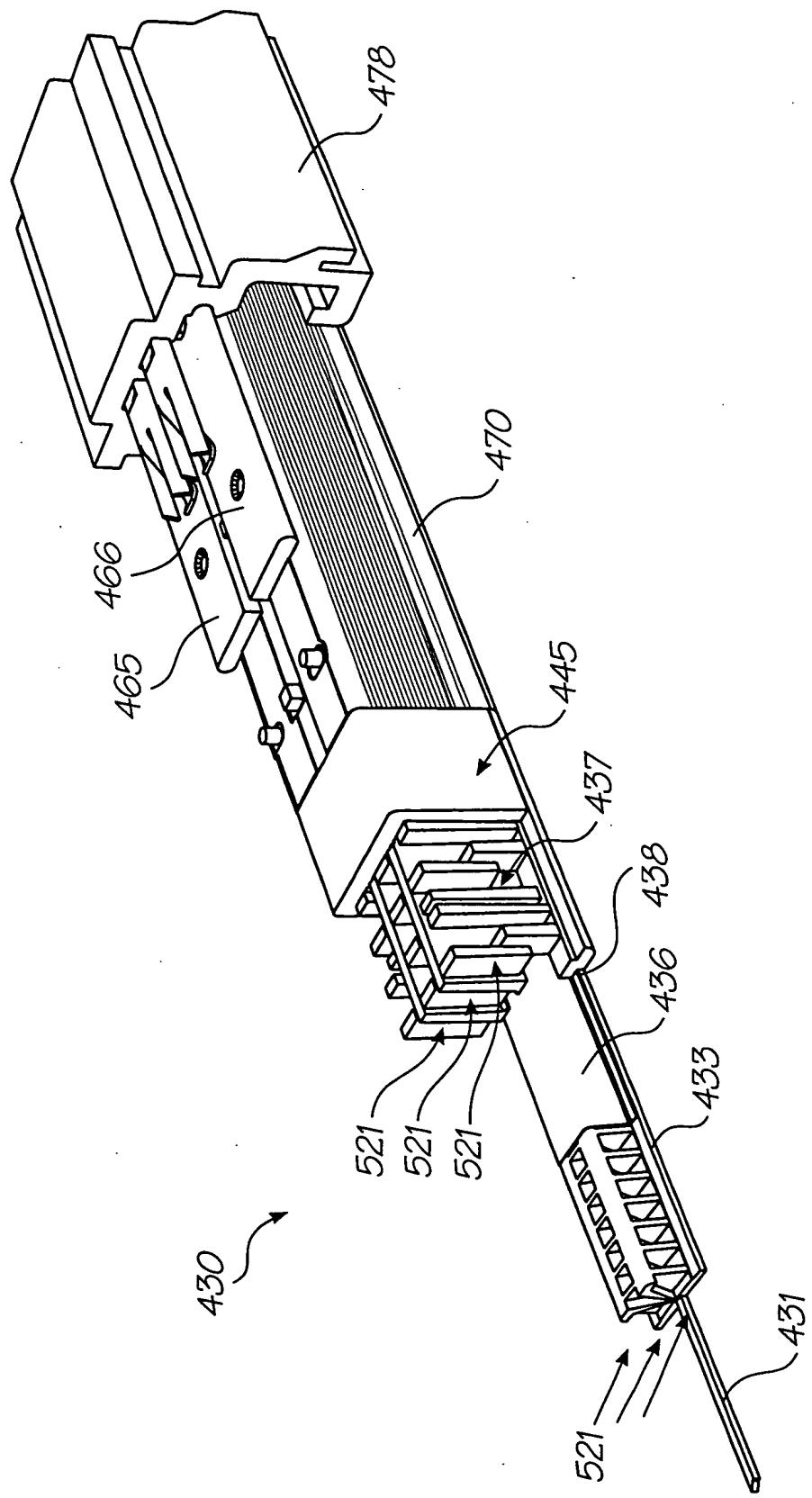
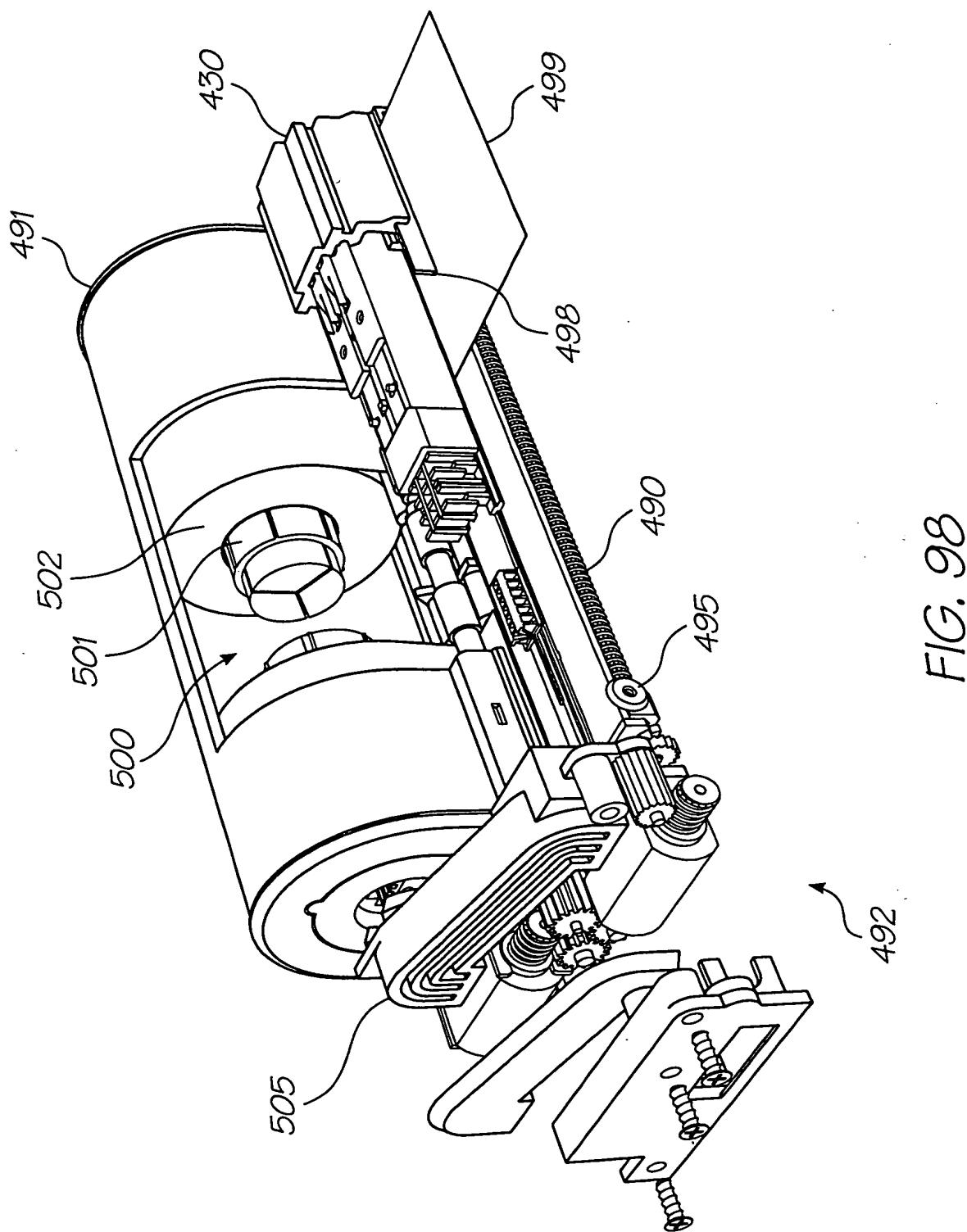


FIG. 97



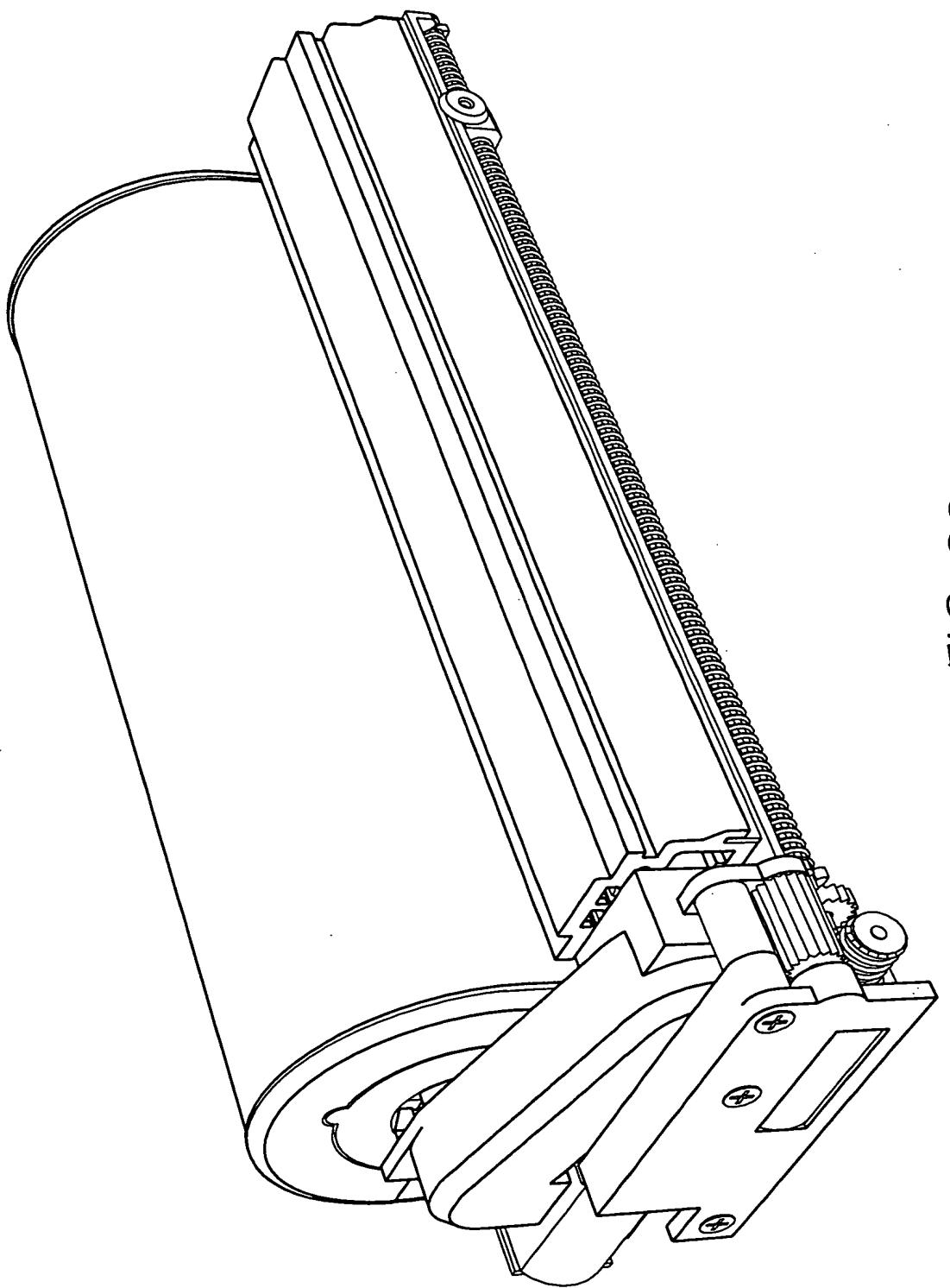


FIG. 99

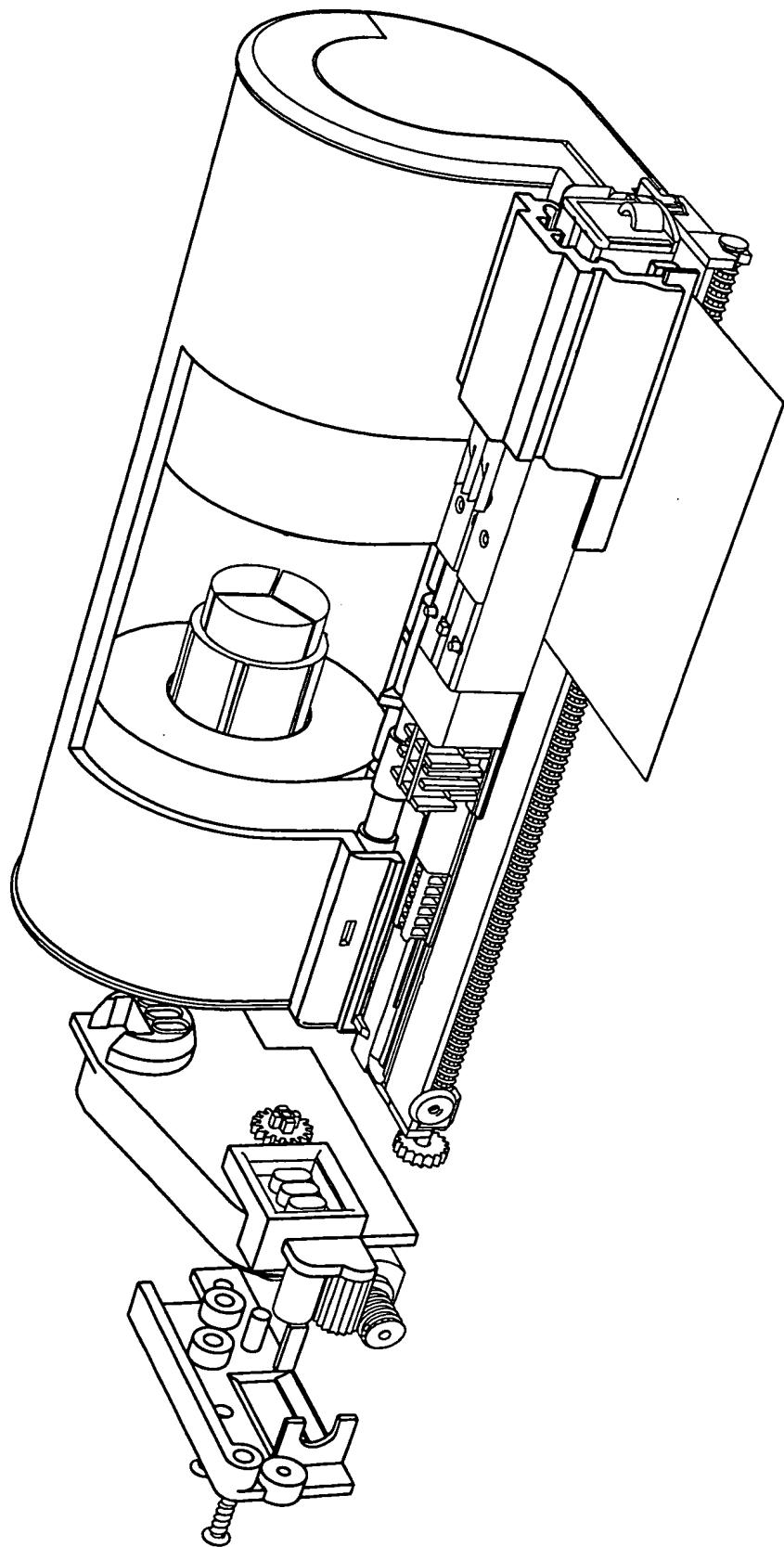


FIG. 100

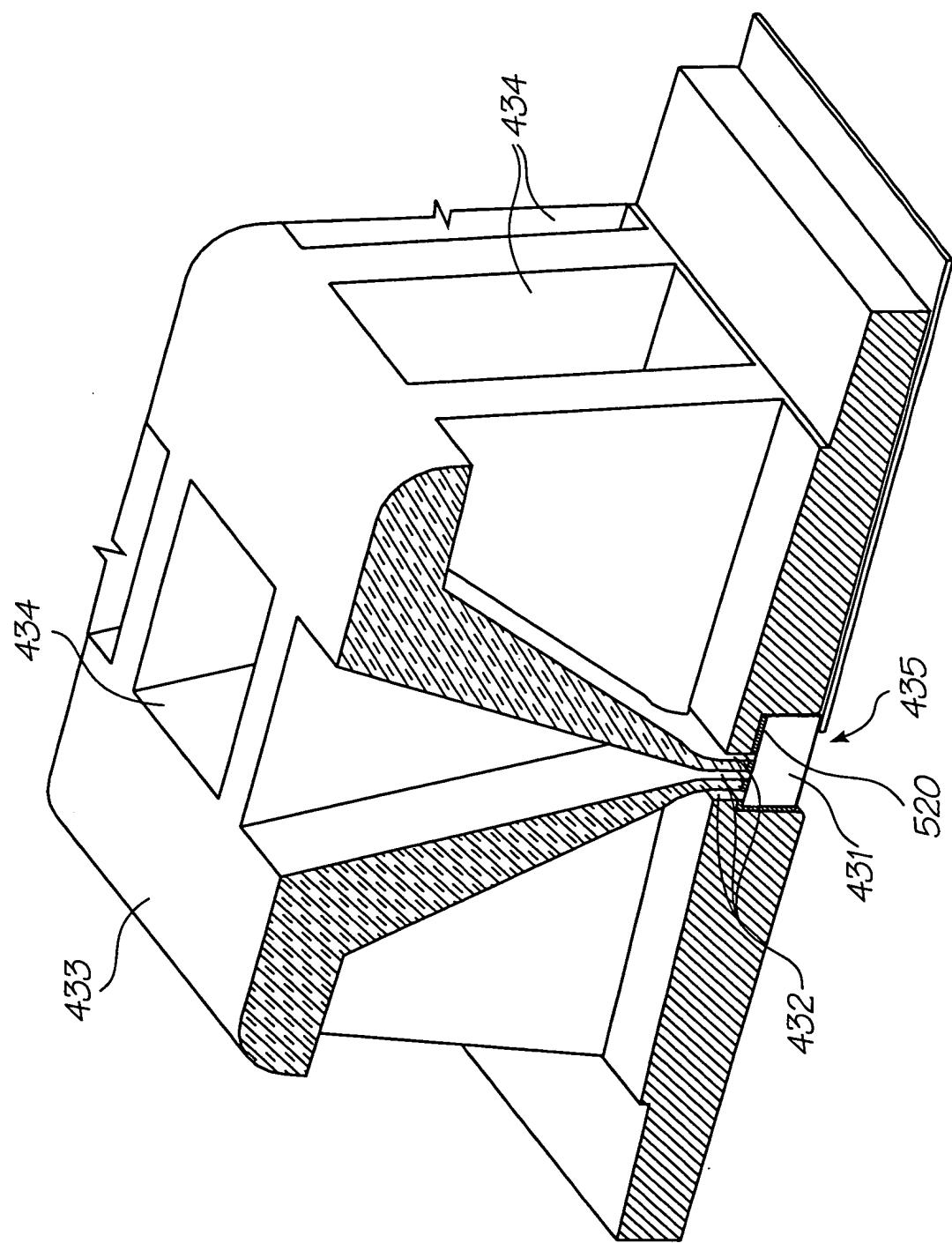


FIG. 101

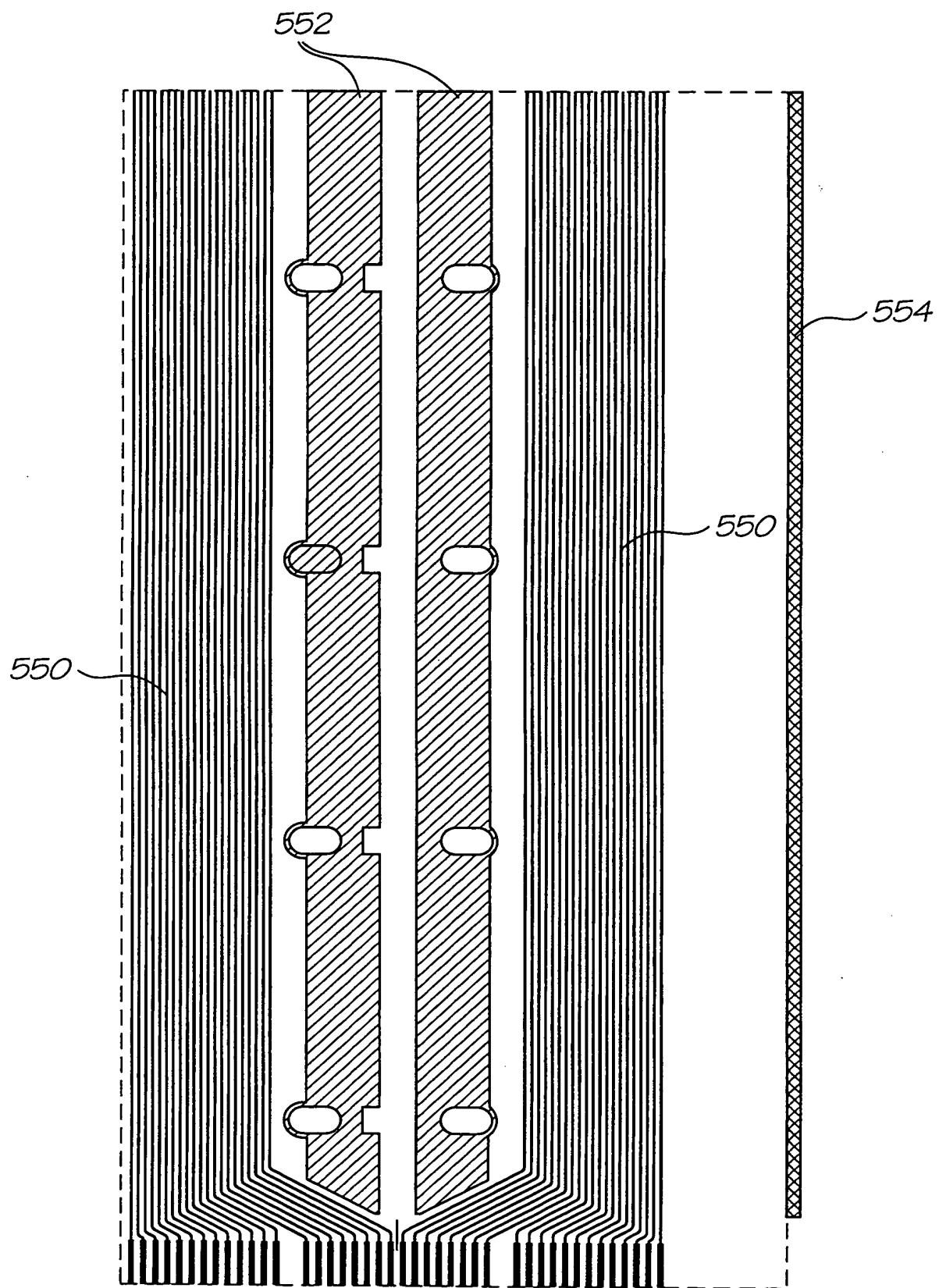


FIG. 102

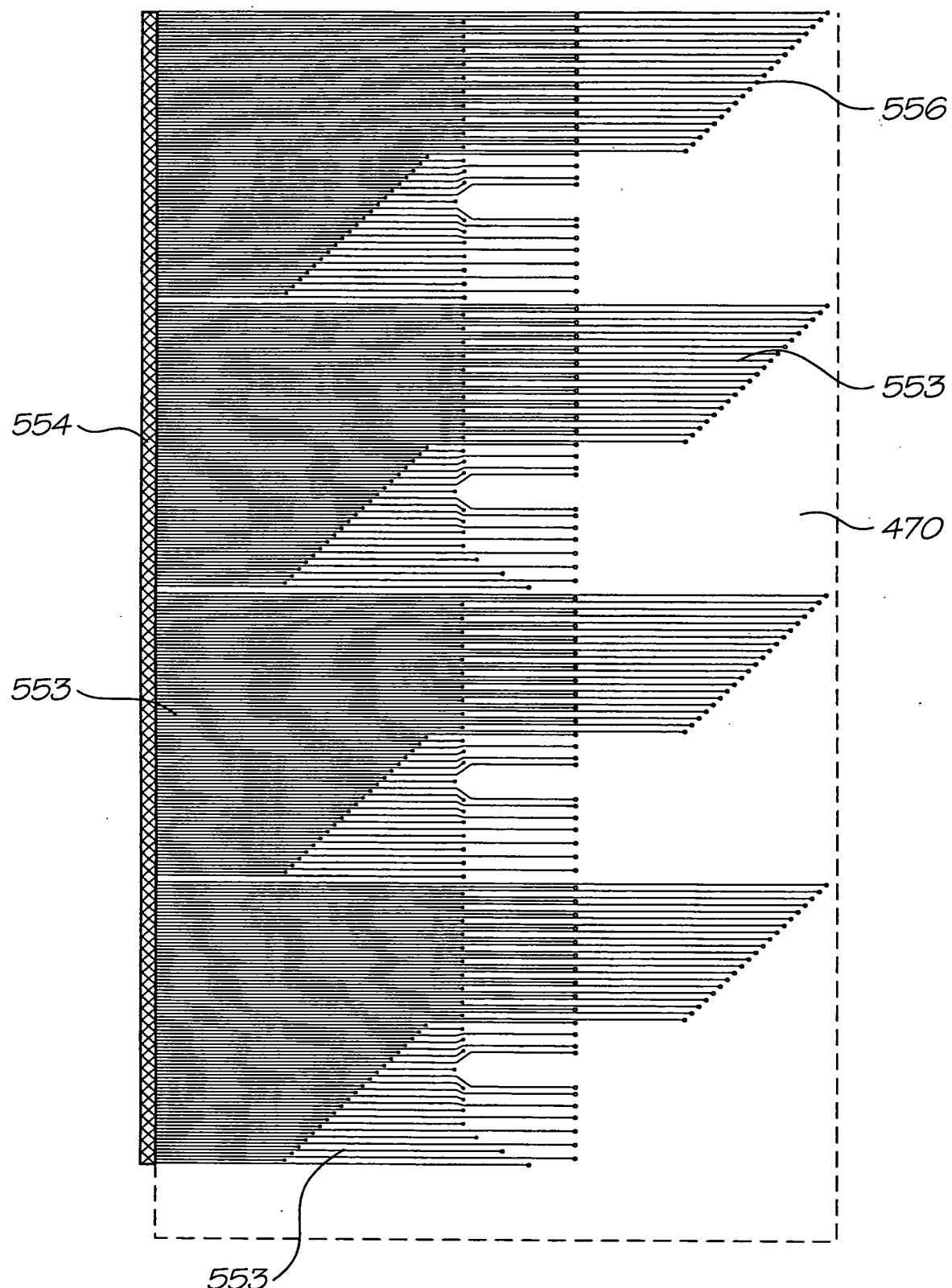


FIG. 103

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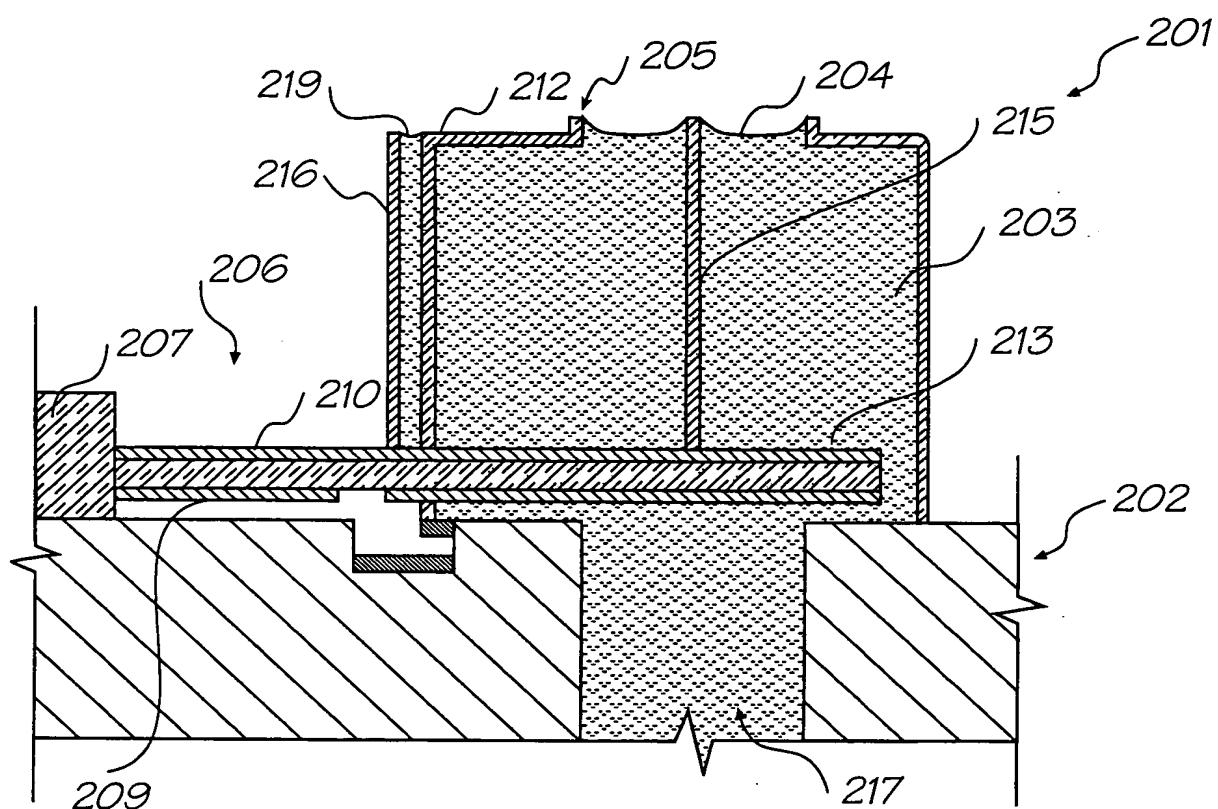


FIG. 104

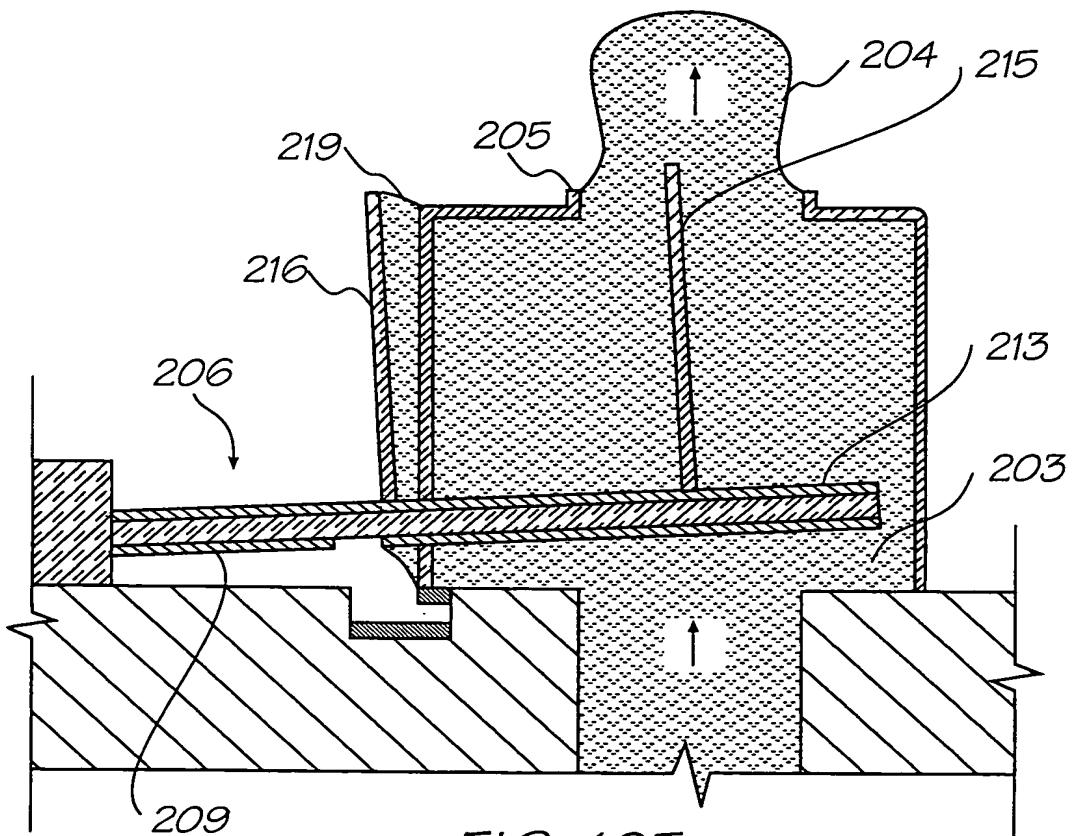


FIG. 105

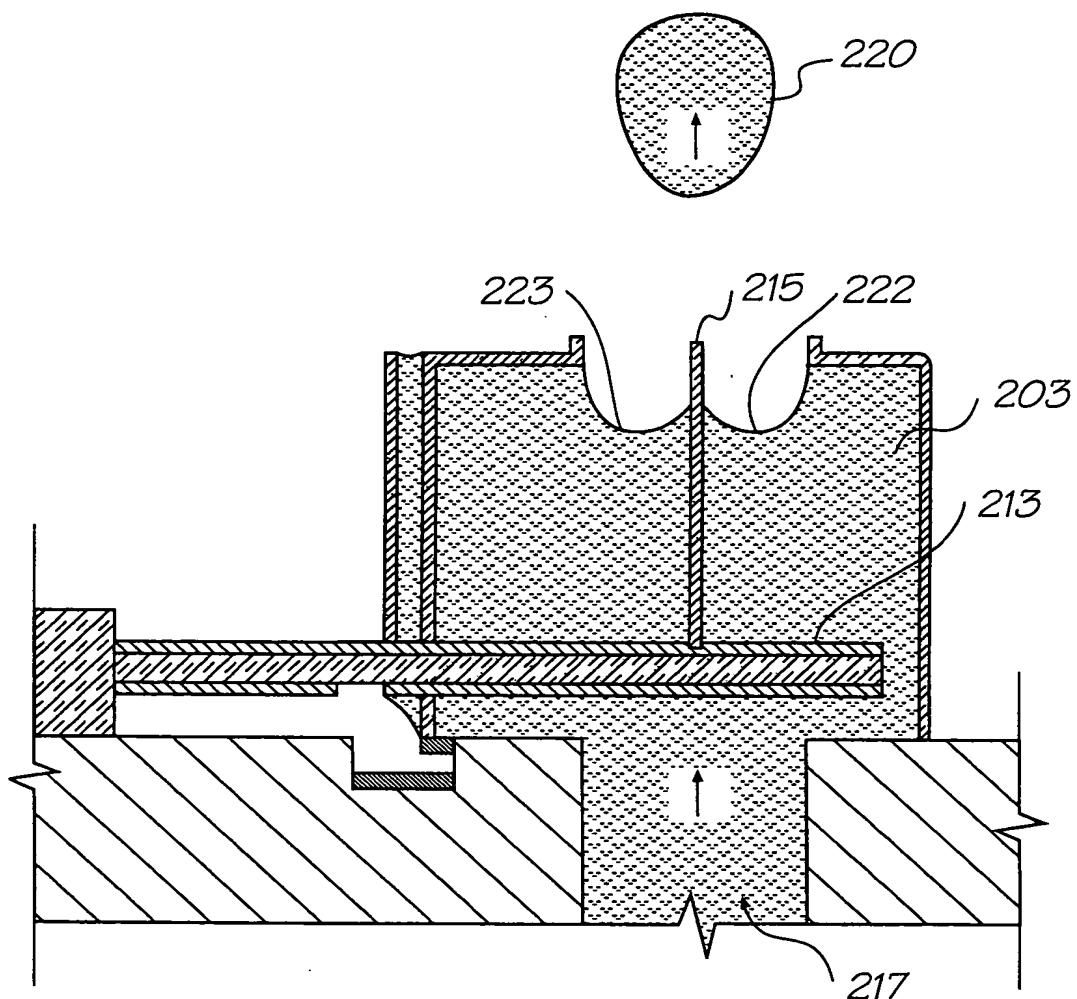
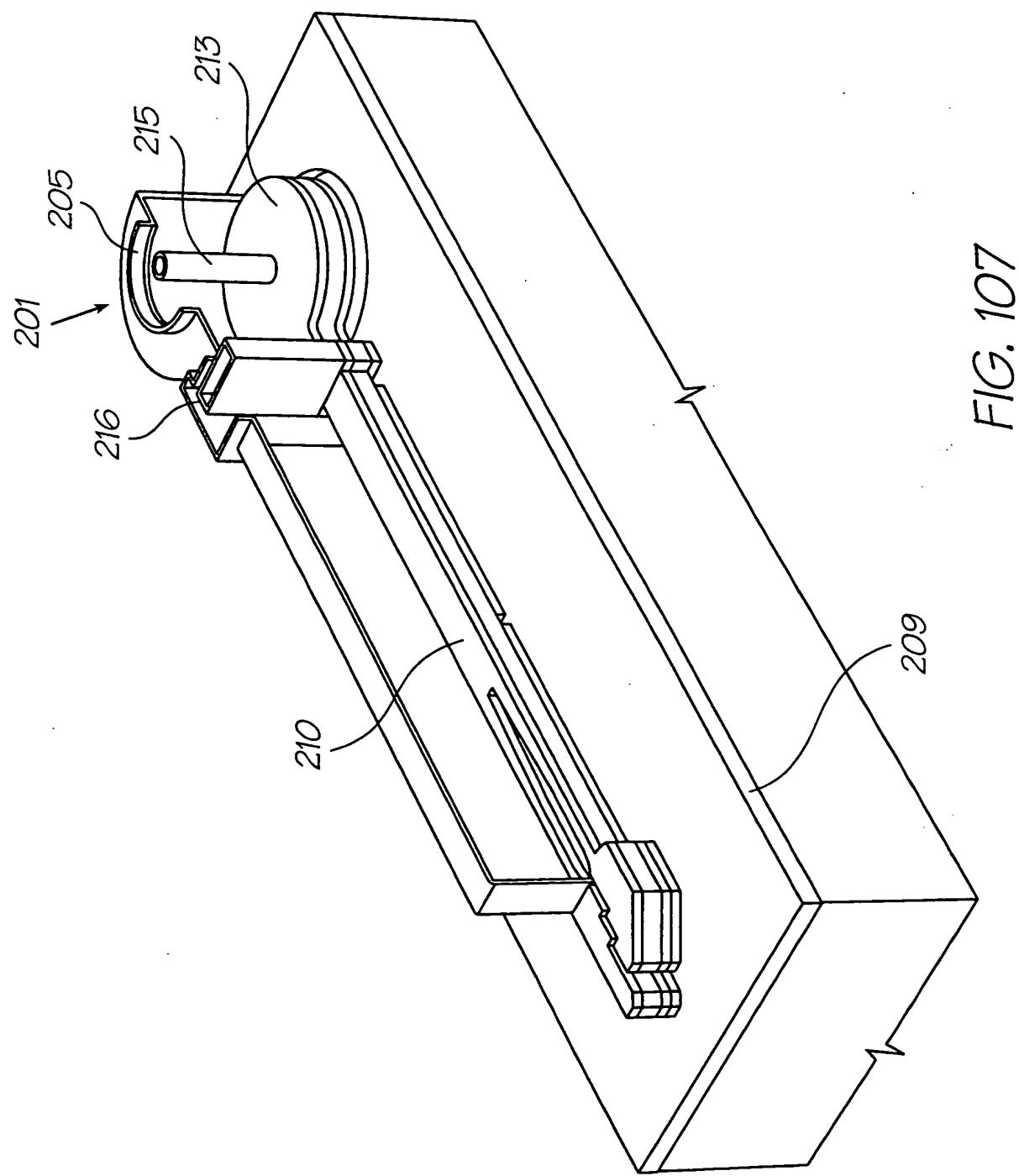
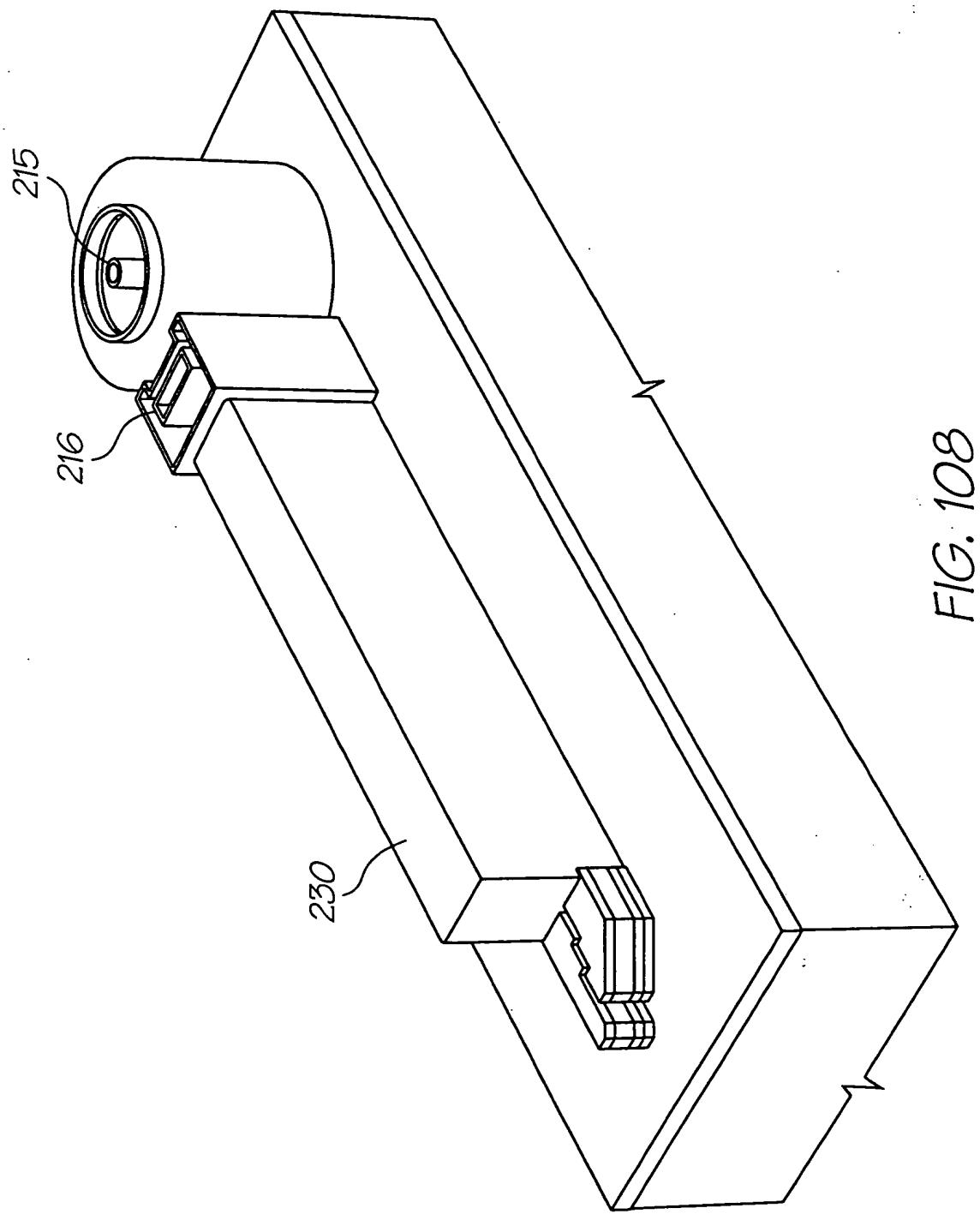


FIG. 106





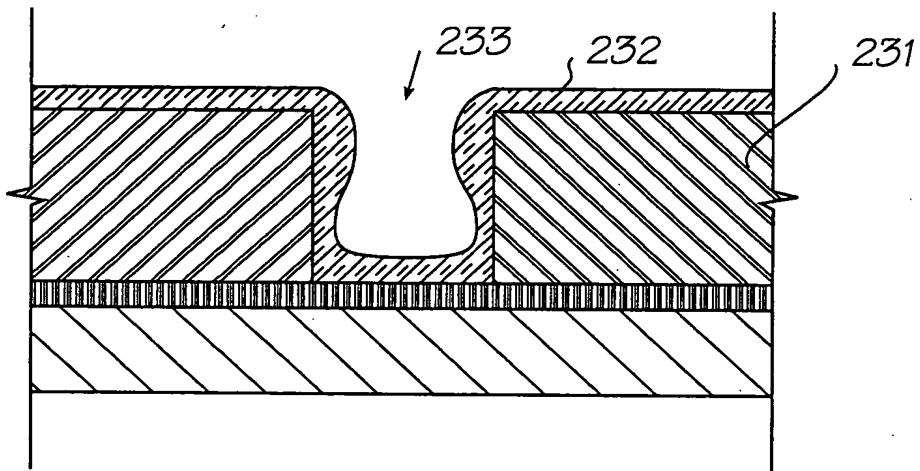


FIG. 109

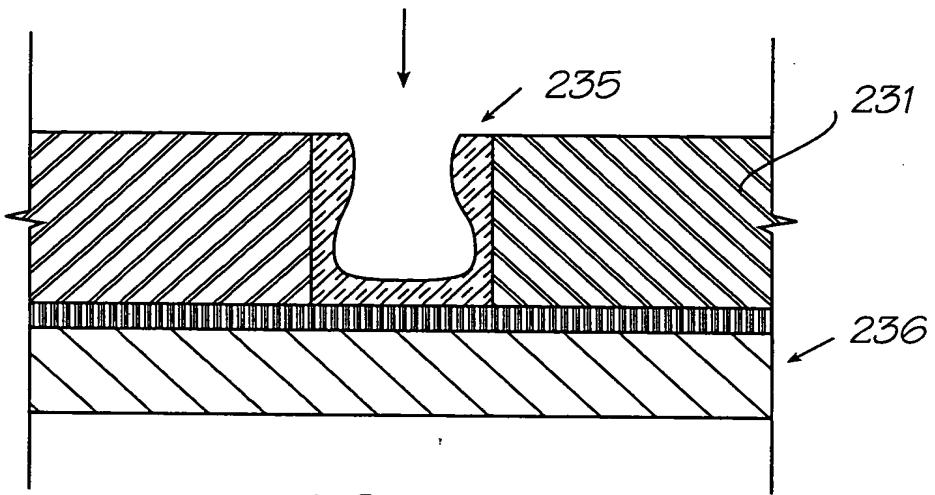


FIG. 110

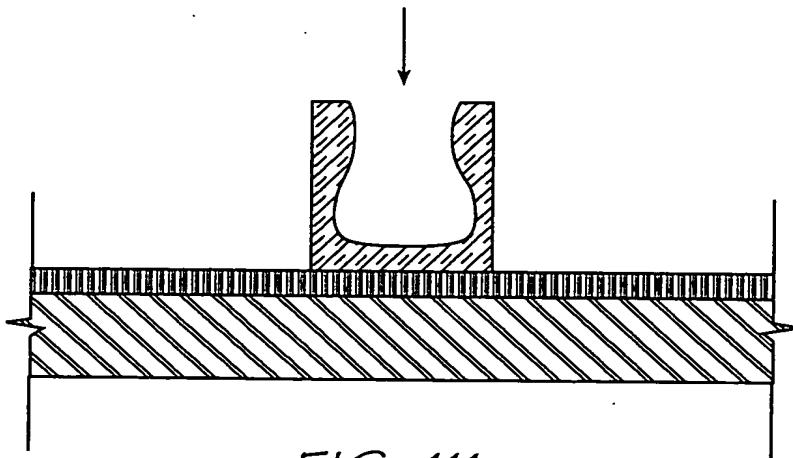


FIG. 111